

Quality Survey: A Global Study of Quality
A Technical Report
March 2013

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Background

Since 2007, the Good Project has explored the concept of quality^a. We have sought to understand how individuals define quality, what it means in their personal and professional lives, and in which spheres quality matters most. After nearly a hundred in-depth interviews in the United States with individuals of varying ages and backgrounds, we “tested” our findings with a larger sample. Specifically, we developed and disseminated a survey to a thousand people reflecting the country’s demography. Inasmuch as our initial findings resonated with this larger population, we disseminated the survey in six other countries.

In this technical report we summarize the findings of the quality survey. The report is divided into five major sections: 1) Excellence; 2) Excellence and Companies; 3) Excellence and Objects; 4) The Role of Work; and 5) The Use of Writing Implements. Our findings inform our own understanding of “good” and suggest ways to help individuals lead a meaningful life.

Introduction to the Quality Survey

Over seven thousand respondents from Brazil, China, Germany, India, Indonesia, Turkey and the US were surveyed for their beliefs about quality (approximately 1000 individuals in each of the seven countries). The 74 questions on the survey covered five areas: excellence, technology, work, time, and writing implements. The sample was drawn from Internet users who signed up to a survey rewards program (Research Now). Research Now attempted to recruit a sample of individuals that reflected the demographic characteristics of each country.

How to read this report

In this report, for ease of reading, the statistical analyses have been separated from the substantive conclusions. Unless otherwise indicated, statements in this report can be considered statistically significant. For further information about analyses, please note that supporting statistical analyses are footnoted numerically and can be found in Appendix I.

1. Excellence

1.1 What is Excellence?

Survey Questions 11a, 12a, 13

One of the three essential components of Good Work is excellence. The relationship between quality and excellence has not been fully explored. For example, are “high quality” and “excellence” simply synonyms or do people make a qualitative distinction between them? Can there be a paramount version of quality, and if so, what is its nature?

Generally, the data suggest that people have a clear opinion about what constitutes quality. Across five categories (services, durable goods, non-durable goods, paid work done for

^a This research has been generously funded by Faber-Castell since 2007; several key members have offered valuable support and input.

others and leisure time) respondents by and large believe they had a *very clear opinion* about what quality means, regardless of demographic differences. Yet there were a few exceptions where demographics seem to be associated with clarity of opinion.

| | |
|-------------------|--|
| Services | Service industry work done <i>for</i> respondents such as at restaurants or auto-mechanics |
| Paid work | Any type of work done <i>by</i> respondents |
| Durable Goods | Items that last more than a year such refrigerators or cars |
| Non-Durable Goods | Items that last less than a year such as household items (paper napkins, soap) |
| Leisure Time | Time that is spent not engaged in main employment activity (weekends, holidays) |

Table 1.1 – Definitions of categories of interest.

- Females have clearer opinions than males about all domains except durable goods. 55% of males and 52% of females have “very clear” opinions about how quality relates to durable goods.¹
- Socioeconomic status is inversely related to clarity of opinions about quality for all five domains: as SES increases, respondents generally report being less sure about what quality means.²

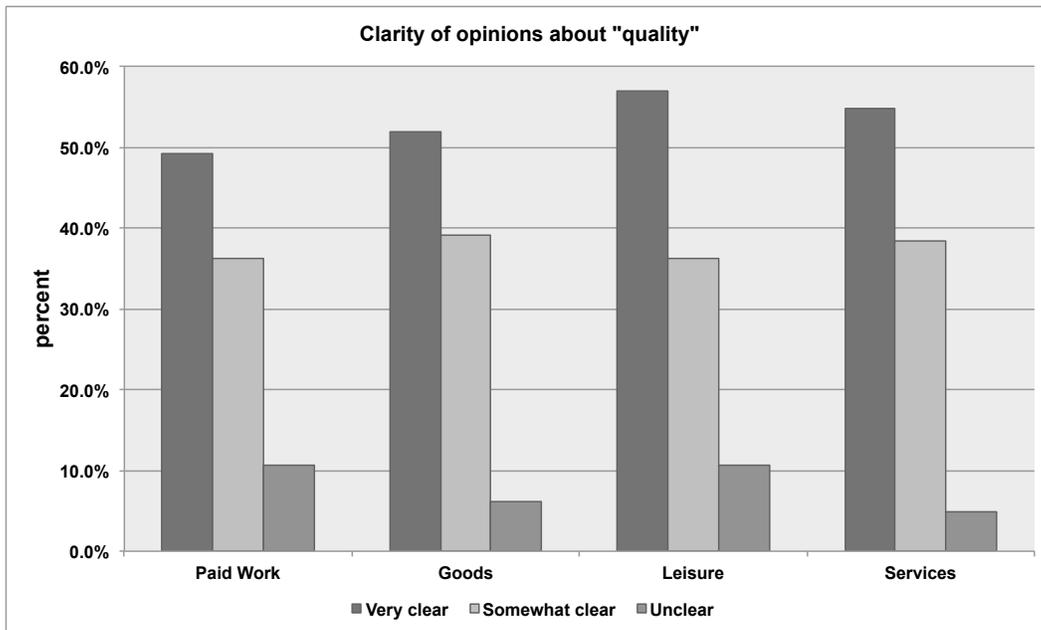


Fig.1.1 – The extent to which respondents have a clear opinion about what constitutes quality in goods (durable and non-durable), leisure time, paid work and services.

Not only do respondents generally have a clear opinion about quality; they also generally consult this opinion when they invest time or money in an activity. For goods, services and paid work, respondents generally think about quality **most** or **all** of the time. This pattern is not true for leisure time however; with respect to this category, respondents tend to think about quality **some** or **most** of the time.

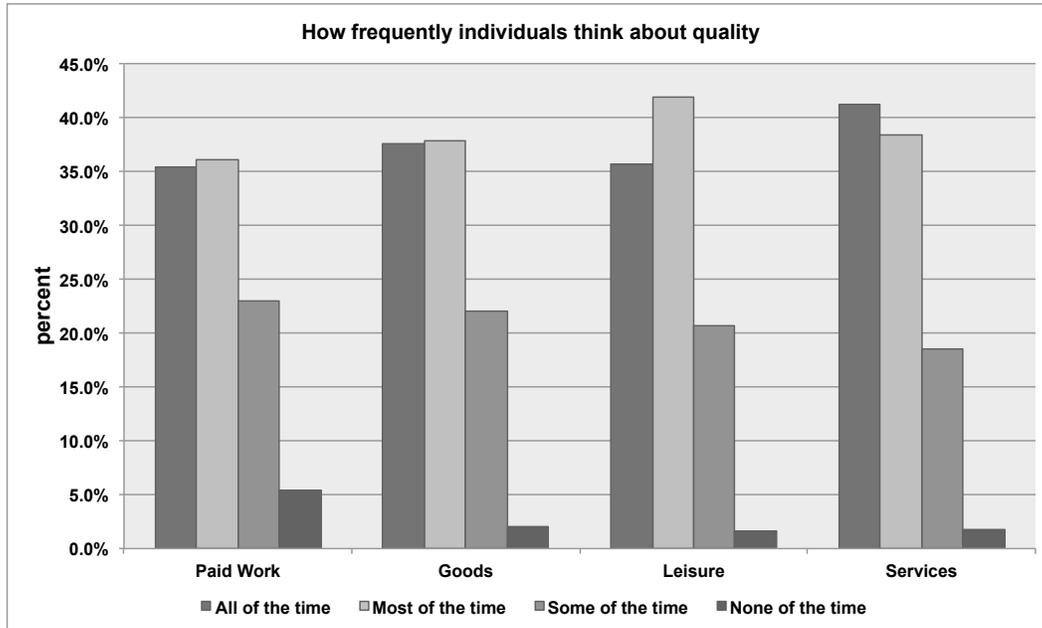


Fig.1.2 – The regularity that respondents think about quality when spending time or money on goods (durable and non-durable), leisure time, paid work and services.

For the sample as a whole, between 35-42% of respondents **always** think about what quality means before spending time or money on **services, durable goods, non-durable goods, leisure** or **paid work**. For all five domains, this trend differs by gender and SES. Specifically, females³ and, in comparison with their counterparts, individuals of lower SES think of quality more frequently for all five domains⁴.

Country-specific information for 1.1

United States

The majority of American respondents have a very clear opinion of what quality means in terms of all five categories (i.e., services, durable goods, non-durable goods, paid work done for others, and leisure time). The majority of American respondents always think about what quality means before spending time or money on services, durable goods, or paid work for others, and think about what quality means most of the time before spending time or money on non-durable goods or leisure time.

Brazil

The majority of Brazilian respondents have a very clear opinion of what quality means in terms of all five categories (i.e., services, durable goods, non-durable goods, paid work done for others, and leisure time). Most Brazilian respondents always think about what quality means before spending time or money on any of the five categories (i.e., services, durable goods, non-durable goods, paid work done for others, and leisure time). Although most Brazilian respondents indicate that they think about what quality means before spending time or money on services, teenage Brazilian respondents think about this less than do other age groups. For instance, most Brazilian respondents think about quality all or most of the time, while teenage Brazilians indicated that they only thought about quality before spending time or money on services some or most of the time. Additionally, while most Brazilian respondents think about quality all of the time in terms of paid work, the large majority of teenage Brazilian respondents only think about quality most of the time in those instances.

Germany

The majority of German respondents have a very clear opinion of what quality means in terms of services and durable goods. Although the majority of Germans have a very clear opinion of what quality means in terms of services, durable goods, paid work done for others, and leisure time, this is less true of younger Germans (under 30). For that group, approximately half of the sample indicated only having a somewhat clear opinion about what quality means in those domains. About the same percentage of German respondents have a very clear opinion and somewhat of an opinion of what quality means in terms of non-durable goods (approximately 45%). A greater percentage of female respondents have a very clear opinion of what quality looks like in terms of non-durable goods. The majority of German respondents think about what quality means most of the time before spending time or money on any of the five categories (i.e., services, durable goods, non-durable goods, paid work done for others, and leisure time). Note, though, that most German respondents in the bottom half of SES indicate that they think about quality *all* of the time before spending time or money on durable goods.

India

The majority of Indian respondents have a very clear opinion of what quality means in terms of all five categories (i.e., services, durable goods, non-durable goods, paid work done for others, and leisure time). The majority of Indian respondents always think about what quality means before spending time or money on services (46%) and durable goods (40%); moreover, they think about what quality means most of the time before spending time or money on non-durable goods (43%), paid work done for others (41%), and leisure activities (41%).

China

The majority of Chinese respondents have a very clear opinion of what quality means in terms of services, durable goods, and leisure time. About the same percentage of Chinese respondents have a very clear opinion and somewhat of an opinion of what quality means in terms of non-durable goods and paid work done for others (approximately 45%). The greatest percentage of Chinese respondents always think about what quality means before spending time or money on services or durable goods. The greatest percentage of Chinese respondents think about what quality means most of the time before spending time or money on non-durable goods, paid work they do for others, or leisure time. The largest percentage of female respondents have a very clear opinion about what quality means in relation to non-durable goods, while the largest percentage of males have somewhat of an opinion.

Indonesia

The majority of Indonesian respondents have a very clear opinion of what quality means in terms of services, durable goods, and leisure time. About the same percentage of Indonesian respondents have a very clear opinion and somewhat of an opinion of what quality means in terms of non-durable goods and paid work done for others (approximately 45%). The greatest percentage of Indonesian respondents have somewhat of an opinion about what quality means in terms of paid work done for others. A majority of female respondents have a very clear opinion about what quality means in terms of services used, while about the same percentage of male respondents have a very clear opinion and somewhat of an opinion. About an equal percentage of Indonesian respondents think about what quality means most of the time and some of the time before spending time or money on services. The greatest percentage of Indonesian respondents think about what quality means some of the time before spending time or money on durable goods, non-durable goods, or paid work for others. Most Indonesian respondents think about what quality means most of the time before spending time or money on leisure time.

Indonesia was the only country for which neither age nor SES is a significant predictor of how frequently respondents think about quality in any of the five domains.⁵ Indonesian and Turkish respondents are less sure than residents of the other five countries about what quality means in terms of goods and work done for others (Table 1.2).

| | Average level of clarity about what 'quality' means (scale 1-3) | | |
|-----------|--|--------------------------|----------------|
| | Durable Goods | Non-Durable Goods | Work |
| Indonesia | 2.42 (0.72) | 2.26 (0.55) | 2.11 (0.44) |
| Turkey | 2.22 (0.77) | 2.21 (0.78) | 2.07 (0.88) |
| Brazil | 2.50 (0.82) | 2.54 (0.90) | 2.50 (0.88) |
| China | 2.46 (0.75) | 2.41 (0.69) | 2.35 (0.64) |
| Germany | 2.54 (0.87) | 2.36 (0.64) | 2.37 (0.72) |
| India | 2.51 (0.82) | 2.55 (0.91) | 2.50 (0.88) |
| USA | 2.56 (0.90) | 2.55 (0.91) | 2.50 (0.91) |

Table 1.2 – Average level of clarity about what ‘quality’ means in the categories durable goods, non-durable goods and work by country.

Turkey

Relative to other countries, Turkish respondents’ opinions of quality are less clear. While the majority of respondents from other countries say they had very clear opinions about quality for all five categories, between 40-50% of Turkish respondents indicate that they had only somewhat clear opinions about quality in all five categories. In all cases, this represented a majority of Turkish respondents. This is true across all individual difference measures such as age, SES, or gender. In terms of how frequently respondents think about quality before spending time or money on any of the five categories, Turkish respondents are most similar to Brazilian respondents: while respondents in the other five countries were most likely to indicate that they think about quality most of the time before spending money on services, goods, work, or leisure, Turkish respondents are most likely to indicate that they thought about quality *all* of the time before spending on these categories. Again, this pattern is true regardless of age, SES, or gender.

1.2 Excellence and Companies

Survey Questions 13b, 14

Over the lifetime of The Good Project, special attention has been paid to companies as important venues of work. In this research, respondents were asked their thoughts about what makes a company excellent.

Respondents from all countries are asked to name a single company that they believe to be “excellent”.^b Companies were then categorized according to the economic sector to which they belonged: **Industrials** (e.g., Dow Chemical, Tata Steel, Exxon-Mobil), **Consumer Goods** (e.g., Ford Motor Co., Unilever, Coca-Cola), **Consumer Services** (e.g., American Airlines, Amazon.com, Wal-Mart), **Health & Finance** (e.g., Aflac, MetLife, Bank of America) and **Technology & Telecom** (e.g., Apple, Google, Verizon). Interestingly, across the entire sample, respondents mostly choose Consumer Goods or Technology & Telecom companies, and rarely choose Health and Financial companies (Fig 1.3).

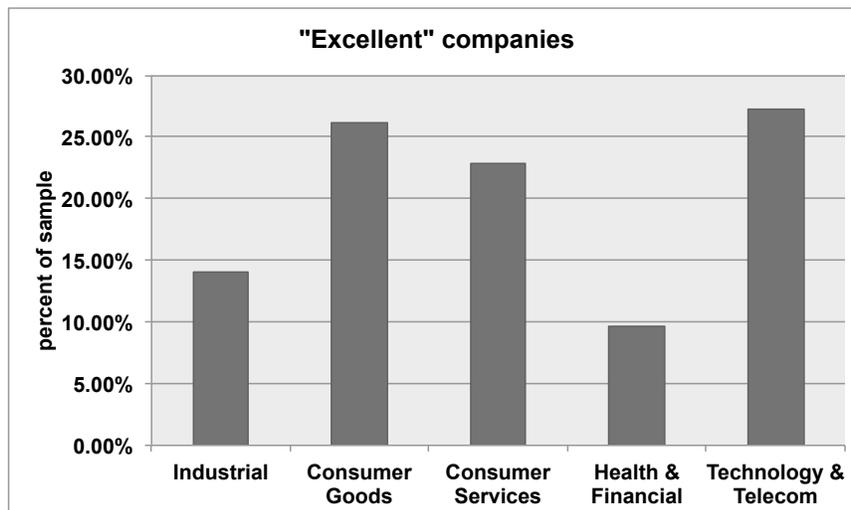


Fig.1.3 – Percentage of entire sample that named a company from a particular economic sector as “excellent”.

For the sample as a whole, the greatest percentage of respondents think the company they name is excellent because the company’s products last a long time/their services are consistent. To a lesser extent, respondents think the company is excellent because it treats employees well and has a good reputation (Fig. 1.4). For the sample as a whole, the greatest percentage of respondents think the least important reason a company is excellent is because of the company’s nationality. To a lesser extent, respondents think the least important reason is because the company’s products are beautiful to look at, because the company has been in business a long time, or because the company is profitable.

^b Companies from China and Turkey have been recorded but not translated or analyzed.

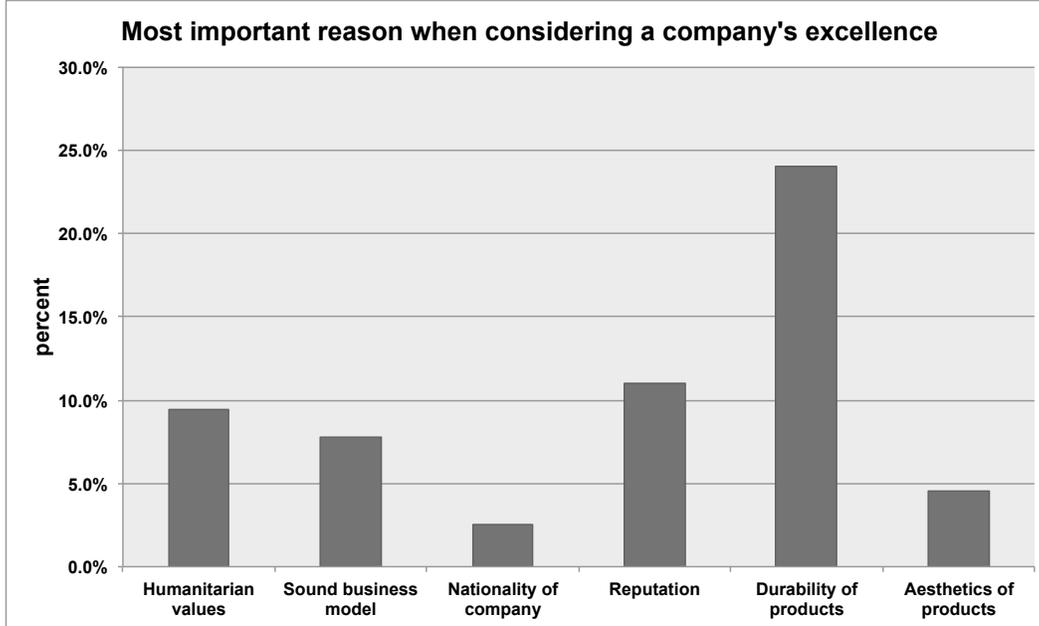


Fig.1.4 – Percentage of entire sample that attribute different aspects to what makes a company 'excellent'.

Respondents are also asked to indicate who had the greatest influence on their opinion of what makes a company “excellent”: authority figures, their personal social network (e.g., friends), family members, none of the above, or some other influence (Fig. 1.5). Respondents from the U.S., Brazil, Germany, and India incline towards indicating their family experience has the greatest influence on their opinion of companies’ quality (though German respondents and Indian respondents were almost equally likely to indicate that their social network had an influence). Respondents from China, Indonesia, and Turkey indicate that their social network has the greatest influence on their opinion of what makes a company excellent. Interestingly, over a quarter of German respondents (25.4%) respond that no one had an influence on their opinion of what makes a company excellent; no other country had more than 8.5% of respondents select “none”.

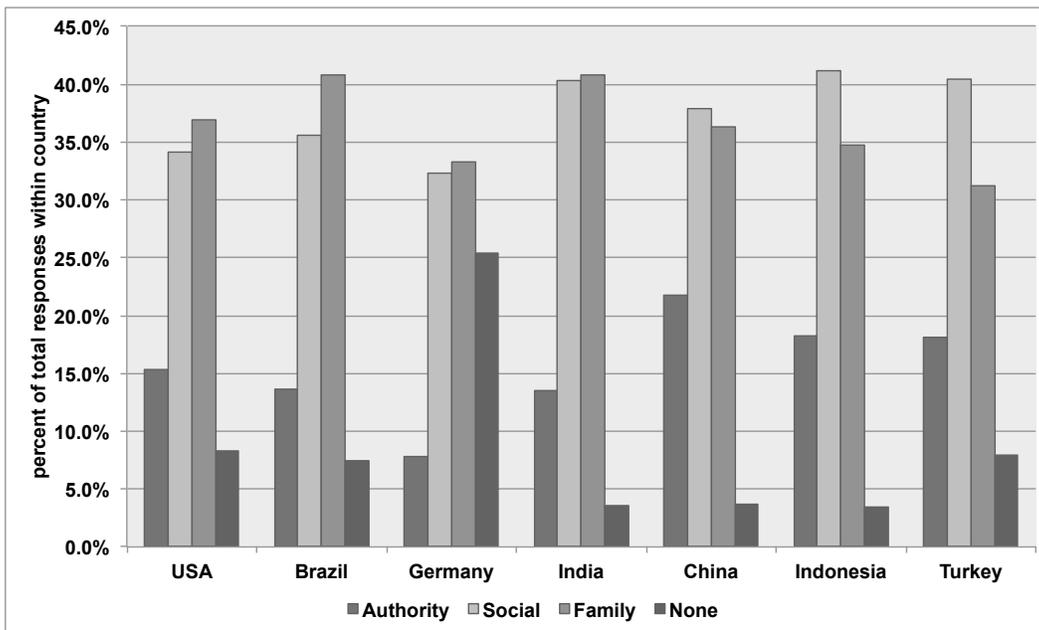


Fig.1.5 – Respondents’ indication of who had the greatest influence on their opinion of what makes a company “excellent”. Note that this was a “check all that apply” question, and therefore the percentage is computed out of the total number of checked responses.

Country-specific information for 1.2

United States

The greatest percentages of US respondents think the company they named is excellent because its products last a long time/they provide consistent service and they have a good reputation among friends/family. The third most popular choice is “other,” which yields mixed results (e.g., many said customer service, and one-offs like ‘they gave me a job when no one else would’). The greatest percentages of US respondents think the least important reason the company they named is excellent is the company’s nationality or because the company makes beautiful products.

Brazil

The greatest percentages of Brazilian respondents think the company they name is excellent because it treats employees well or because the company’s products last a long time/they provide consistent service. The greatest percentages of Brazilian respondents think the least important reason the company they named is excellent is because of the company’s nationality, profitability, or the company makes beautiful products.

Germany

The greatest percentages of German respondents think the company they name is excellent because its products last a long time/they provide consistent service, the company treats employees well, or the company has been in business for a long time. The greatest percentage of German respondents think the least important reason the company they name is excellent is because of the company's nationality.

India

The greatest percentages of Indian respondents think the company they name is excellent because its products last a long time/they provide consistent service, the company treats employees well, or the company is ethical. The greatest percentages of Indian respondents think the least important reason the company they name is excellent is because of the company's nationality, the company has been around a long time, profitability, and it makes beautiful products.

China

The greatest percentages of Chinese respondents think the company they name is excellent because its products last a long time/they provide consistent service and to a lesser extent because the company has a good reputation with friends and family. The greatest percentages of Chinese respondents think the least important reason the company they name is excellent is because of the company's nationality or it has been in business for a long time.

Indonesia

An equal percentage of Indonesian respondents think the company they name is excellent because it has been in business a long time and because the company's products last a long time/they provide consistent service. To a lesser extent, respondents think the company is excellent because it has a good reputation with friends/family or treats its employees well. The greatest percentages of Indonesian respondents think the least important reason the company they name is excellent is because of the company's nationality.

Turkey

Turkish respondents are most likely to call a company excellent if they believe the company employs humanitarian practices (e.g., treats employees well or cares about the environment). To a lesser extent, respondents call a company excellent if its products last a long time. Most Turkish respondents indicate that the least important reason for calling a company excellent is if they believe the company's business to be sound (e.g., it has been in business for a long time or is profitable).

1.3 Excellence and Objects

Survey Questions 46, 47

The patterns described above link the way respondents talk about the quality of goods, paid work, and services. To further explore these relationships, it is interesting to ask what constitutes excellence for objects such as durable and non-durable goods. In the survey, individuals wrote in their own response when asked to identify an object they own that they believe is excellent. After translation and careful analysis of the specific objects^c we find that the majority of survey respondents identify electronic devices—mainly, a computer, smartphone, or tablet. This finding is consistent across all seven countries. Furthermore, this finding holds true regardless of age or individual preference for traditional media versus digital media (a category finding described later in this report). Interestingly, less than 10% of the whole sample cites a “traditional media” item (e.g., a book or pen) as excellent, and there is no reliable predictor (with the exception of China, those who prefer traditional media seem to prefer traditional media items).

Specifically, on a respondent-by-respondent basis, these objects were coded into 9 possible categories (category abbreviations, used throughout the subsequent analyses, listed in parentheses):

1. Tablets, laptops, PCs, or smartphones (TLPS) – iPads, laptop computers, phones, etc.
2. Other consumer electronics (CE) – mp3 players, televisions, video game consoles
3. Vehicles and large appliances (VLA) – cars, motorcycles, and large home appliances such as refrigerators, washing machines, etc.
4. Traditional media (TM) – pens, pencils, notebooks, books specifically identified as *not* being e-books, art supplies, etc.
5. Clothing, jewelry, accessories, personal grooming products (CAPG) – clothes, bags, watches, skin products, shavers, etc.
6. Houses and home goods (HHG) – any home goods not categorized as “large appliances”; e.g., furniture, kitchenware, rugs, household decorations
7. Sports and hobby equipment (SH) – sporting goods like tennis rackets, fishing reels, guns, collectibles
8. Food and beverage (FB)
9. Other (OTHER) – any concrete objects that do not fit one of the eight aforementioned categories

The proportion of responses in each category across the entire sample is shown in Figure 1.6. In general, nearly half of the sample identify an item from the TLPS category. More than half of the sample (65.1%) identify some type of consumer electronic object (category 1 + category 2) as being “excellent.” Less than 10% of the sample (7.7%) identify an object from the “traditional media” category as being “excellent.” The majority of those objects are books, pens, or pencils.

^c Analysis of specific objects is not currently available for Turkey, because those responses have not yet been translated into English.

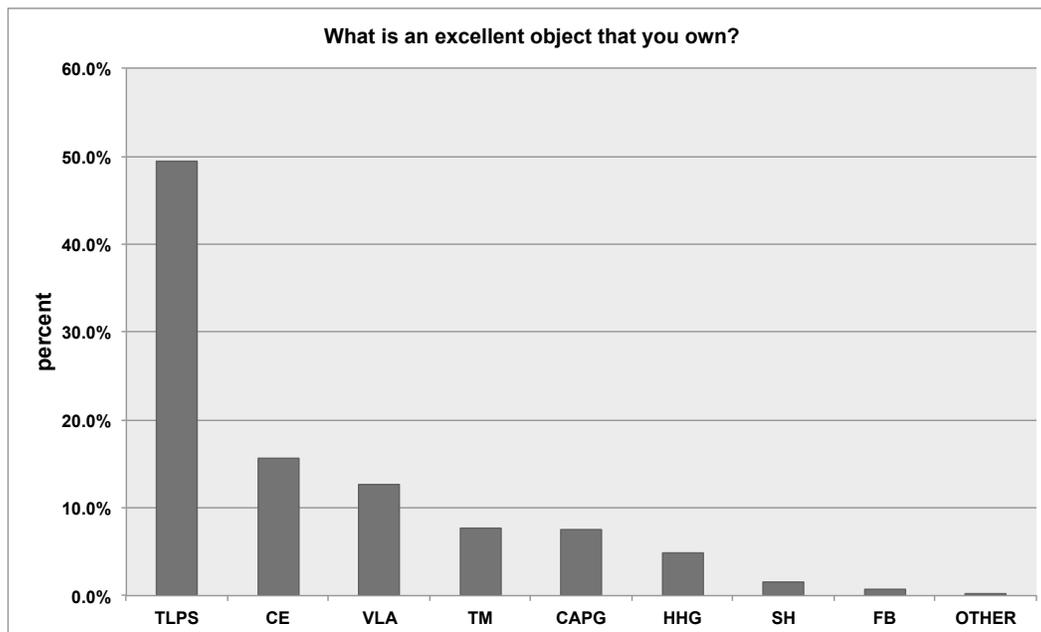


Figure 1.6. Percentage of respondents from the entire sample who named an object from each of the nine object categories.

Further, across the sample as a whole, we find that **younger adults** are significantly *less likely* to name an object from the CE, VLA, CAPG, or HHG categories than from the TLPS category. Specifically, young respondents are:⁶

- 40.9% *less likely* to select CE than TLPS
- 75.3% *less likely* to select VLA than TLPS
- 33.1% *less likely* to select CAPG than TLPS^d
- 75.1% *less likely* to select HHG than TLPS

We also find that respondents who indicate a preference for **digital media** are significantly *less likely* to name an object from the CE or TM categories than from the TLPS category.

Preferring digital media make a respondent...⁷

- 44.7% *less likely* to select CE than TLPS
- 43.6% *less likely* to select TM than TLPS

Across the sample as a whole, no predictive relationship is observed between social economic status (SES) and the type of object named as “excellent.”

In our analysis of responses by country, there are only a handful of instances in which any individual factor makes a participant *more likely* to name an object from a category other than TLPS. All of these are very large increases in likelihood, possibly skewed by the low number of responses in each sub-category:

^d Trend towards significance, $p = 0.06$.

- In Brazil, those who **prefer traditional media over digital media** are significantly more likely (more than 1000 times more likely) to select HHG over TLPS.⁸
- In China, **low income individuals** are significantly more likely (twice as likely) to select CE over TLPS.⁹
- In China, those who **prefer traditional media over digital media** are significantly more likely (more than 1000 times more likely) to select either TM¹⁰ or CAPG¹¹ over TLPS.

On the survey, respondents are also asked to select from a series of options the “most important” reason for identifying the particular object as “excellent” and the “least important” reason identifying the particular object as “excellent.” Respondents are given 10 options to choose from in both cases (see below). In a data-reduction effort, these categories were re-coded into whether the reason was for sentimental purposes (e.g. “it was given to me by someone important to me”), durability (“it has lasted a long time”), aesthetics (“it is beautiful to look at”), or utility (“it has many features”). Recoding was done as follows:

| Response | Recoded as |
|---|------------|
| It represents something about who I am as a person. | sentiment |
| It was given to me by someone important to me. | sentiment |
| It was given to me on a special occasion. | sentiment |
| It has lasted – or will last – a long time. | durability |
| It is beautiful to look at. | aesthetics |
| It does what it is supposed to do. | utility |
| It was expensive. | aesthetics |
| It enables me to do something that I enjoy doing. | utility |
| It keeps me connected to other people. | utility |
| It has many features. | utility |

Divided by respondent’s country of origin, the percentage of respondents who select each recoded response is shown in Figure 1.7 (note that these percentages are corrected for the number of survey responses they were reduced from, to avoid skewing in favor of one category or another). In general, the durability of an object is the most-cited reason for calling that object “excellent”. The only exceptions to this are in the cases of India and Germany, in which more respondents cite “utility” over “durability”.

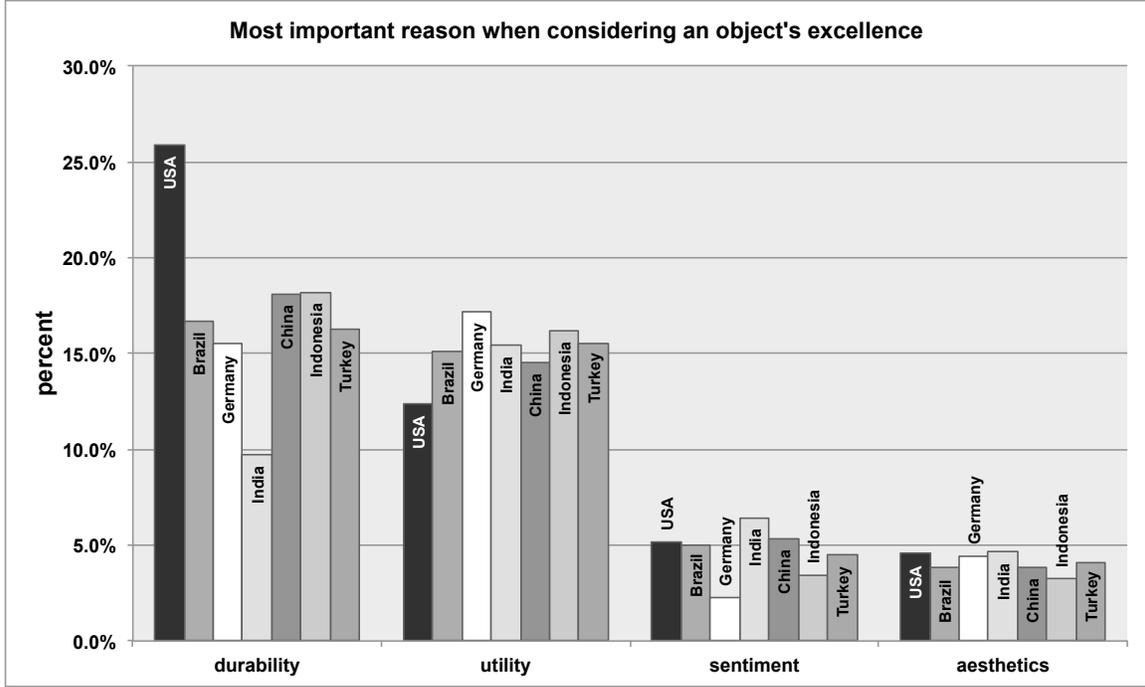


Figure 1.7. Most important reasons for citing an object as “excellent,” by country.

Across the sample, “aesthetics” is identified as the “least important” reason respondents called an object “excellent.” On the whole, respondents seem relatively unconcerned with a product’s price or beauty. These results are shown in Figure 1.8.

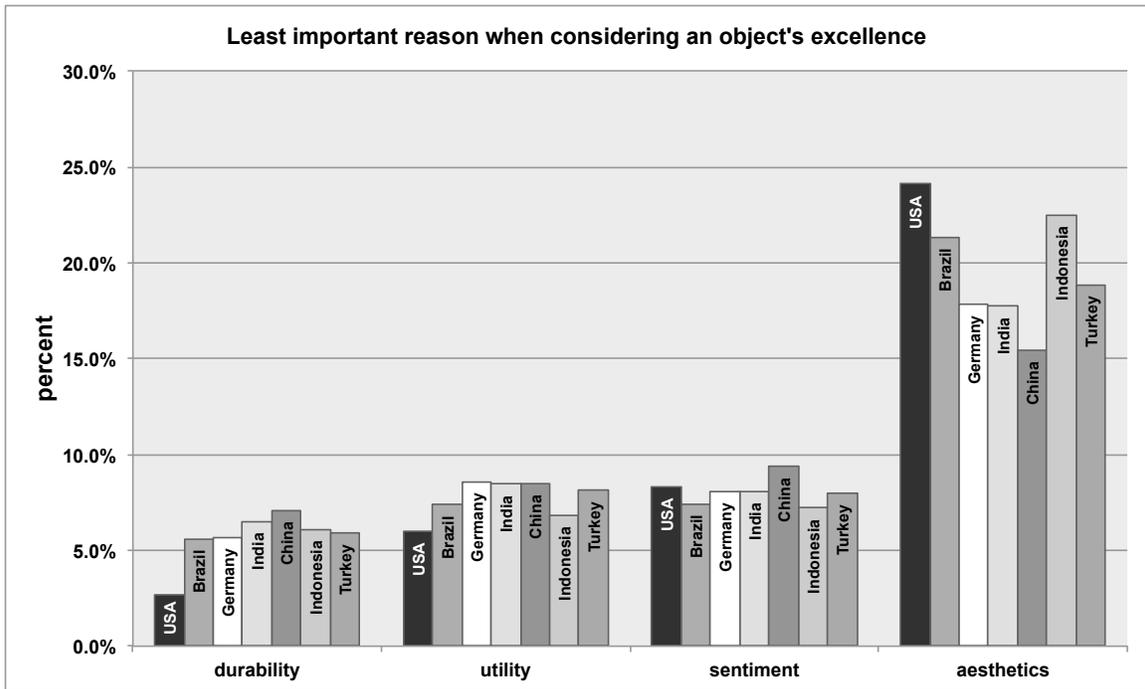


Figure 1.8. Least important reasons for citing an object as “excellent,” by country.

As with excellence and companies, respondents are asked to indicate who had the greatest influence on their opinion of what makes an object excellent (authority figures, social network, family, none, or other; Fig 1.9). Generally, the responses are similar to those observed for company excellence: respondents from the U.S., Brazil, Germany and India most frequently indicate their opinion of what makes an object excellent is influenced by family (note, though, that for company excellence, “social network” was chosen nearly as frequently – this was not the case for object excellence). Respondents from Indonesia and Turkey most frequently indicate that their personal social network influenced their opinion. As with company excellence, Chinese respondents indicate with similar frequency, that their opinion is influenced by either family or their personal social network; however, while their opinion of a company’s excellence shows a slight bias towards “social network” influence, their opinion of an object’s excellence shows a slight bias towards “family” influence.

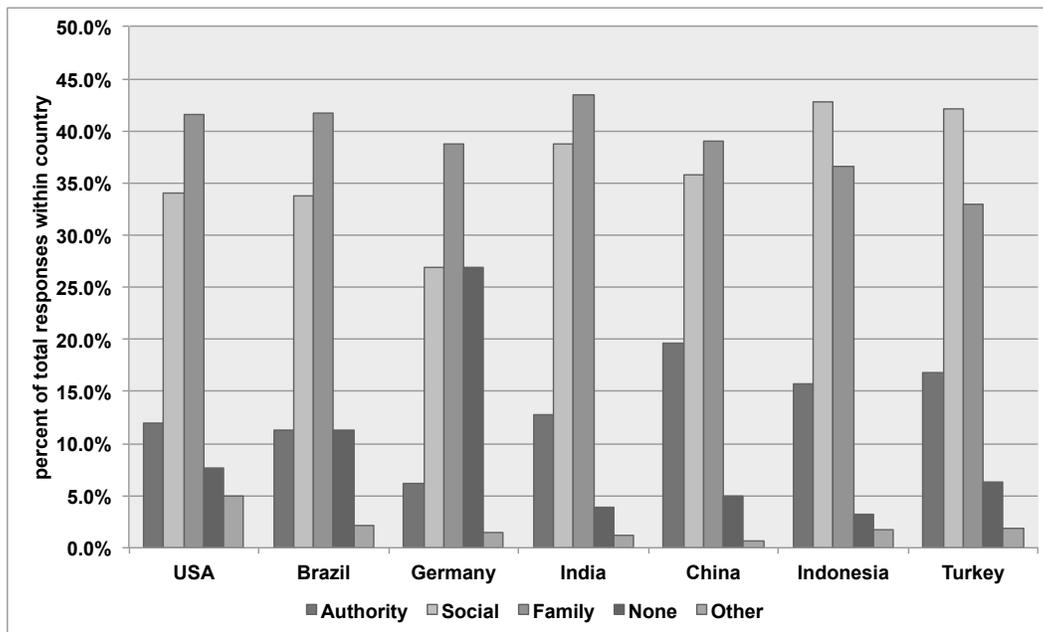


Fig.1.9 – Respondents’ indication of who had the greatest influence on their opinion of what makes an object “excellent”. As in Fig 1.5., this was a “check all that apply” question, and therefore percentages are calculated out of the total number of responses within a country.

Country-specific information for 1.3

Germany

Though female German respondents indicate that aesthetics are the least important reason for calling an object “excellent,” male respondents indicate that utility is the least important reason. A similar dissociation exists based on whether respondents prefer traditional or digital media: those who prefer traditional media indicate that aesthetics are least important, while those who prefer digital media indicate that utility is least important.

India

An equal number of Indian respondents in the lowest and highest SES quartiles indicate that aesthetics and utility are the least important reasons to call an object “excellent,” but a dissociation exists for the two middle SES quartiles: those in the 2nd quartile believe utility to be the least important reason for calling an object “excellent,” while those in the 3rd quartile believe aesthetics are the least important reason. Female respondents are more likely to say aesthetics are the least important reason for calling an object “excellent,” while male respondents are more likely to choose utility.

China

Most bottom-quartile SES Chinese respondents indicate that aesthetics are the least important reason to call an object excellent, while the 2nd and 3rd quartile Chinese respondents select utility. The top-quartile respondents split evenly between aesthetics and utility. More respondents who prefer traditional media indicate aesthetics to be the least important reason to call an object “excellent,” while those who prefer digital media choose utility.

1.4 Excellence and Work

Survey Questions 70, 71, 72

Because the Good Project originally began by focusing on the work with which individuals engage on a daily basis, we were particular interested in understanding how respondents all over the world think about excellence and work.

For the sample as a whole, the greatest percentage of respondents believes that “excellent work” means meeting requirements (e.g., meeting authority standards, being timely, etc.; 27.2% of the sample) or applying effort (e.g., giving 100%, doing more than is required; 26.3% of the sample). We observe substantial variability between countries. In particular, respondents from the U.S. are far and away the most likely to indicate that excellent work means applying effort; 46.8% of U.S. respondents list this as their definition for excellent work. The next closest country is India, with 35.1% of respondents indicating that excellent work means applying effort.

However, 37.2% of Indian respondents also choose applying effort as the factor that *least* defines excellent work. Within each country, we subtracted the percentage of respondents who indicate that applying effort *least* defines excellent work from those who indicate that applying effort *most* defines excellent work. The results, shown in Figure 1.10, reveal that U.S. respondents have a strong bias towards believing that excellent work is defined by giving effort. The only other country that believes excellent work is defined by effort is Indonesia, and residents did not seem to believe it nearly as much as the U.S.

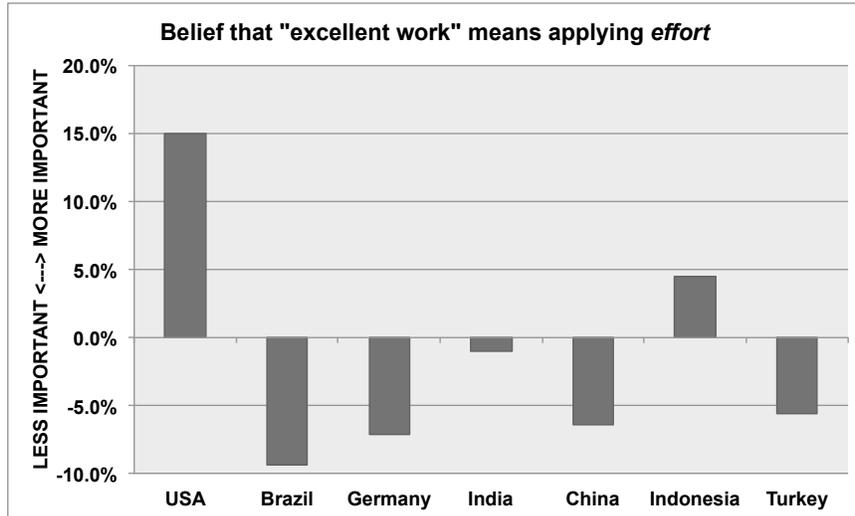


Figure 1.10. Percentage of respondents who indicated effort *least* defined excellent work, subtracted from the percentage of respondents who indicated that effort *most* defined excellent work. The y-axis represents a country's bias for believing excellent work is defined by giving effort; bars above 0% indicate a country believes effort defines excellent work and bars below 0% indicate a country believes effort does not define excellent work.

“Effort” is not the only category of work excellence for which the U.S. respondents are outliers. Shown in Figure 1.11, the U.S. is the only country that did not believe that working well with others defines excellent work. In the cases of both effort and working well with others, the U.S. differs significantly from the other countries¹².

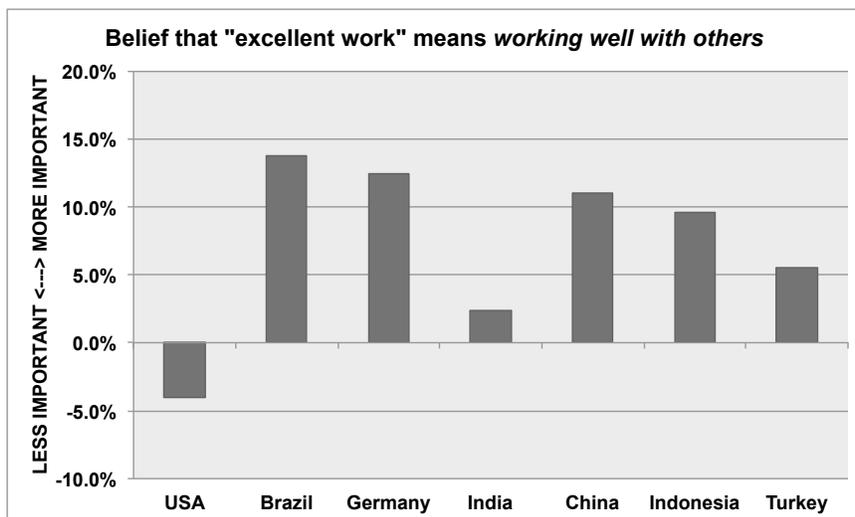


Figure 1.11. Percentage of respondents who indicated cooperating with others *least* defined excellent work, subtracted from the percentage of respondents who indicated that cooperating with others *most* defined excellent work.

We also ask respondents to explain times when they failed to meet their personal definition of excellent work. Here, again, there is little agreement among countries. Respondents from the

U.S., India, and Turkey indicate that unclear expectations impede their ability to produce excellent work (Indian respondents also say having insufficient resources contribute to these failures). Brazilian and Indonesian respondents indicate that having insufficient resources most impede their ability to produce excellent work. Respondents from Germany indicate that they did not produce excellent work when they did not have enough time to do so. Respondents from China indicate that restrictions from their supervisor or clients are what keep them from producing excellent work.

Country-specific information for 1.4

United States

The largest percentage of U.S. respondents believe that excellent work is defined by applying effort, regardless of SES. For factors that least define excellent work, meeting requirements was less important for lower SES respondents and preparation (e.g., having the right tools for the job or using quality materials) is less important for higher SES respondents.

Brazil

The greatest percentage of Brazilian respondents indicated that excellent work means performing meaningful work/being ethical, or working well with a team. The greatest percentage of Brazilian respondents indicates that applying effort or meeting requirements least defines excellent work. The greatest percentage of Brazilian respondents in the upper quartile of SES indicates that excellent work most means performing meaningful work, while an equal number of Brazilian respondents in the lower quartile of SES believe that excellent work most means cooperating with others or performing meaningful work. Regardless of SES, most Brazilian respondents believe that meeting requirements least defines excellent work.

Germany

The greatest percentage of German respondents believes that excellent work most often means meeting requirements, and that excellent work least often means applying effort. These were true regardless of age or SES.

India

Though the largest percentage of Indian respondents indicate effort as the best definition for excellent work, effort is also the most popular response among Indian respondents for what *least* defines excellent work. Even using the subtractive logic shown in Figures 1.7 and 1.8, there is no most- or least-defining factor that the majority of Indian respondents agreed upon. Dividing the sample from India by SES, though, reveals that the low-SES Indian respondents think that excellent work is best defined by effort and least defined by meeting requirements; respondents above the lowest quartile of SES believe that excellent work is best defined by performing meaningful work and

least defined by applying effort.

China

Regardless of SES, most Chinese respondents believe that excellent work is defined by working well with others or doing meaningful work; most believe that excellent work is least defined by giving effort or being well prepared.

Indonesia

Regardless of SES, most Indonesian respondents believe that giving effort or working well with others best defines excellent work. By far, the majority of respondents believe that preparation is the least-defining factor for what produces excellent work.

Turkey

Lower SES respondents from Turkey believe that excellent work means performing meaningful work (lowest quartile) or meeting requirements (2nd quartile); higher SES respondents believe that excellent work means working well with others. Regardless of SES, most Turkish respondents believe that excellent work is least defined by applying effort.

2. Technology

Survey Questions 21, 22, 23, 24, 26, 27, 28, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 66, 73

The impact of technology on society is another area of long-standing interest to the Good Project. Here, the intersection of quality and technology is discussed with respect to 1.) Whether people prefer to use digital technology or traditional technology (for example, whether respondents would prefer to use a computer or a pen and paper); 2) The goods people buy; 3) The work people do. The aim of this approach is to uncover **how technology relates to the way in which individuals experience quality.**

Preference for traditional (e.g. writing a thank you note by hand, reading a tangible book) vs. digital technology (e.g. sending an email of thanks, using an e-reader) appears to fall one of two ways: First, in Brazil, Germany, Turkey and the US, the majority of respondents prefer traditional technologies, while in China, India and Indonesia preference is for digital technologies (Fig. 2.1). There could be many reasons for this split, though one plausible explanation might be level of development. Specifically, these two groupings correspond well to Human Development Index values, with the lower HDI countries preferring digital and the higher HDI countries preferring traditional technology. However, it should be noted that

Turkey and China have similar HDI values (Turkey = 0.70, China = 0.69), and these two countries still show the dissociation described above.

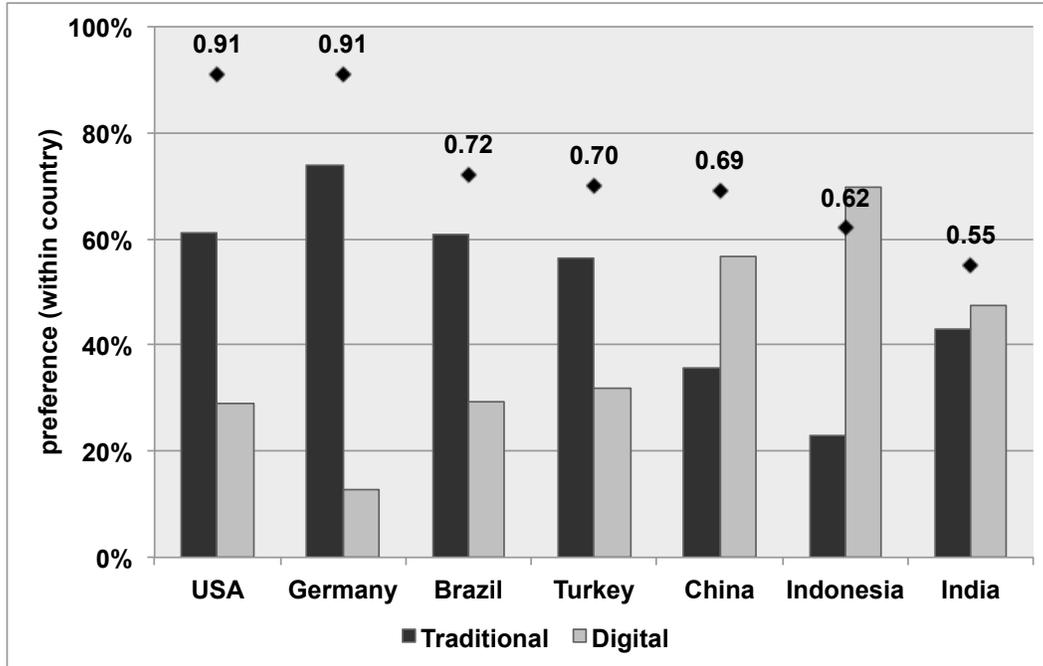


Fig.2.1 – Percent of respondents in each country who prefer traditional technology or digital technology. Human Development Index values for each country are marked above each country.

This is not to say that demographics do not relate to beliefs about technology and quality. Although almost everyone believes that technology improves the quality of goods, on average across all countries, younger (<30 years old) and older (>70 years old) respondents are less likely to endorse this notion (87.9%) than respondents between 30 and 70 years old (94.3%).¹²

Additionally, across the entire sample, there are differences in age and SES for those who prefer traditional to digital means. Those who prefer traditional means are significantly older but also of significantly lower SES than those who prefer digital means.¹³

| | Prefer Traditional | Prefer Digital |
|-----------------|--------------------|----------------|
| Age (SD) | 38.0 (14.8) | 35.9 (13.2) |
| SES (SD) | 4.69 (1.3) | 4.83 (1.2) |

Table 2.1 – Percentage of respondents who believe work is most important to what constitutes quality.

The influence of technology on individuals' understanding of, and thinking about, quality in these ways is fundamentally similar across countries, age groups and SES. Respondents generally have a positive view of technology. The vast majority of people (approximately 90%) in all countries surveyed believe that technology improves the goods they buy and the work

they do. On average, preference for digital media or traditional media does not correlate with a belief that technology improves the quality of work or goods.¹⁴ In other words, regardless of preference for digital or traditional technology, in all countries, people believe technology improves work and goods.

The domain in which respondents *define* quality (services, durable goods, non-durable goods, leisure activities and paid work for others) appears to have little relationship to preference for digital or traditional ways of doing things. In general, across all countries and all categories of experience, approximately 51% of respondents who have a clear idea of what constitutes quality, prefer traditional media, approximately 39% prefer digital technology, and the remainder have no preference. Likewise, across all countries and all categories of experience, approximately 53% of respondents who think about quality “all of the time” prefer traditional media, approximately 38% prefer new/digital technology and the remainder have no preference.

Country Specific Information

United States

The United States’ sample shows a difference between the number of lower and higher earners who believe that technology improves goods. In most other countries, approximately 50% of people who believe that technology improves goods are in the higher half of the income spectrum and half in the lower. In the United States however, 61% of people who believe technology improves goods are in the higher half of earners, 39% in the lower.

Brazil

In both Brazil and India, significantly more female respondents than male respondents believe that technology serves to improve goods.

| Country | Believe technology improves goods (%) | |
|----------------|--|----------|
| | F | M |
| Brazil | 94 | 90 |
| China | 93 | 95 |
| Germany | 77 | 84 |
| India | 93 | 91 |
| Indonesia | 94 | 95 |
| USA | 91 | 94 |
| Turkey | 87 | 89 |

Table 2.2 – Percentage of women and men for each country who believe technology improves goods.

India

In all countries **except India** the young and old seem to think similarly about which type of medium, traditional or digital, they prefer. If a majority of younger (< 30 yo) people prefer traditional technology, then a majority of older (>50 yo) people will also prefer traditional technology. However, in the Indian sample, the majority of young people prefer digital technology, while the majority of older people prefer traditional technology.

| Country | Prefer Traditional (%) | | Prefer Digital (%) | |
|---------------------|------------------------|-------|--------------------|-------|
| | <30yo | >50yo | <30yo | >50yo |
| India | 39 | 51 | 48 | 44 |
| Brazil | 60 | 28 | 59 | 33 |
| China | 41 | 48 | 39 | 56 |
| Germany | 81 | 10 | 71 | 14 |
| Indonesia | 22 | 74 | 32 | 57 |
| USA | 60 | 32 | 66 | 26 |
| Turkey ^e | 60 | 4 | 55 | 3 |

Table 2.3 – Percentage of younger (<30yo) and older (>50yo) respondents who prefer digital technology over traditional technology for each country.

3. Time Well Spent

Survey Questions 18, 19, 20, 44a

This section relates quality to how time is spent. Specifically, how time is spent is discussed with respect to 1.) what it means for time to be well spent; 2.) how unplanned time is spent; and 3.) what is considered wasted time. The goal is to characterize the **way in which individuals experience quality related to time**.

In general, people think time well spent means spending time with family and friends or utilizing technology for entertainment. There are some demographic differences in what people consider time well spent. Compared to other countries, a greater proportion of people from each of the highest HDI countries (i.e., US = 0.91, Germany = 0.91, Brazil = 0.72) think time well spent means spending time with family and friends¹⁵. However, a greater proportion of respondents from the lower HDI countries (i.e., China = 0.69, India = 0.55, Indonesia = 0.62) think time well spent means using technology (Fig. 3.1).¹⁶ Interestingly, Turkey does not fit into either of these two patterns (HDI = 0.70).

^e Note that only a very small percentage of the Turkish sample – less than 4% - is over the age of 50.

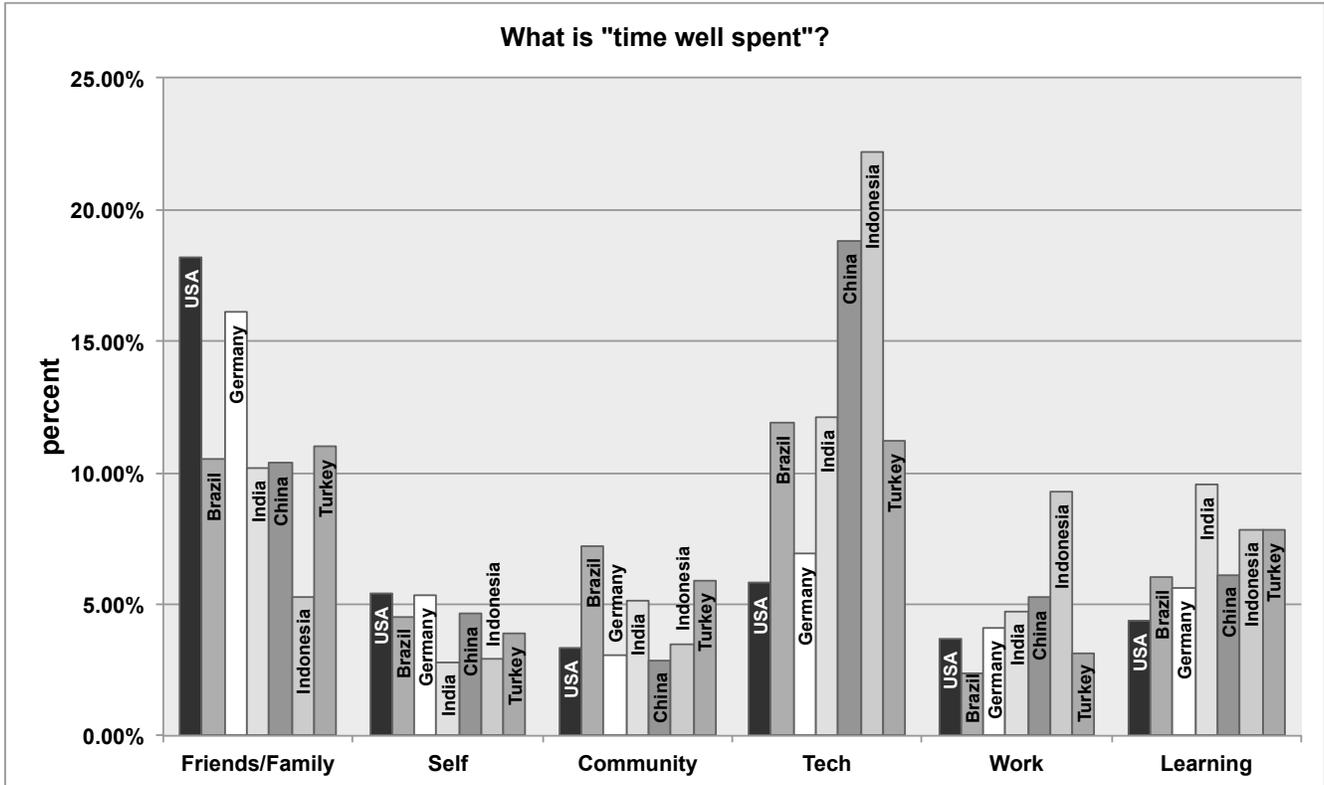


Fig.3.1 – Percent of respondents in each country who chose a particular type of activity as “time well spent.”

Furthermore, we found that the activity that an individual selects as “time well spent,” relates to their age and SES. Figure 3.2 shows the average age and SES of respondents who select different activities as “time well spent,” relative to the mean age and SES of the overall sample. The activities are grouped by statistical similarity (“homogenous subsets”), meaning that activities that are endorsed by respondents of similar age and SES are grouped together.

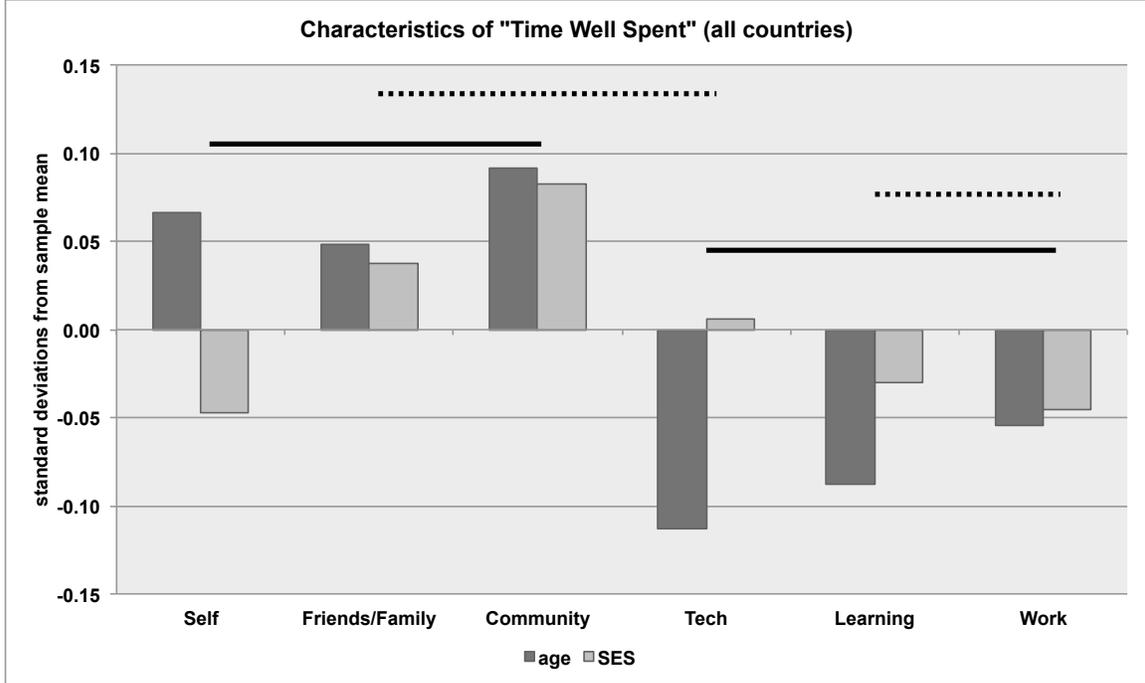


Fig.3.2 – Average age and SES of respondents who chose an activity as “time well spent”, relative to the average age and SES of the sample. Bars above 0.0 indicate a participant is older or of higher SES than average and bars below 0.0 indicate a participant is younger or of lower SES than average. Solid lines indicate statistically similar groups for age and dashed lines indicate statistically similar groups for SES.

We note an interesting relationship between how respondents indicate they waste time in the last 24 hours and how they indicate they would spend a large block of unplanned time. Across all countries, respondents believe that using technology for entertainment is more of a waste of time than other activities like learning something new or doing paid work (Fig 3.2).

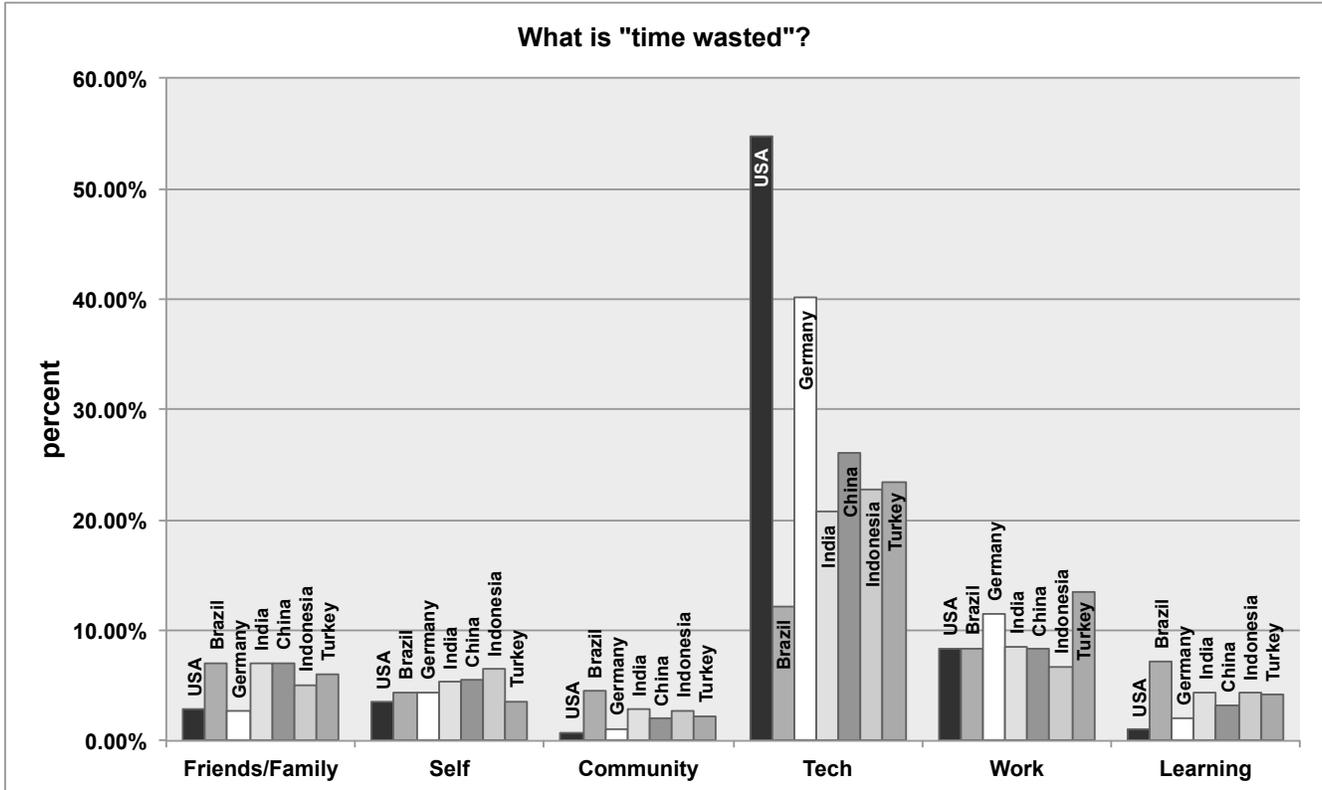


Fig.3.3 – Percent of respondents in each country who chose a particular type of activity as “time wasted.”

However, when participants are asked how they would spend a large block of unplanned time, many respondents indicate that they would use technology for entertainment (17.4% of the sample). This is true of all countries, regardless of age, gender, or SES. Please note, however, that using technology is not the most popular choice for unplanned time; the most popular choices (22.4% of the sample) are activities done by oneself or that relate to self-improvement (e.g., spending time alone, reading a book, exercising).

Intriguingly, though, the respondents who most likely say that they would spend unplanned time using technology for entertainment are the *same respondents* who indicate that they thought they had *wasted* time using technology for entertainment. Across the entire sample, of respondents who indicate that they have previously wasted time using technology, 28% say they would spend unplanned time using technology for entertainment. These data, divided by country, are shown in Figure 3.4.

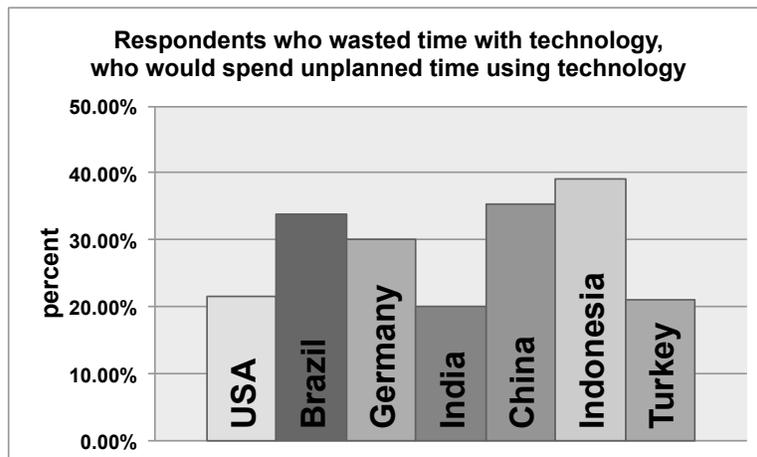


Fig.3.4 – Percent of respondents in each country who said that technology for entertainment was a waste of time and would also spend unplanned time using technology for entertainment.

4. The Role of Work

Survey Question 11

The Good Project is interested in all aspects of work, including how work is perceived with respect to quality. Overall, attitudes to work are highly variable, with each country having trends specific to their culture and circumstance. Yet *the importance of work to defining quality* predicts other behaviors and demographic characteristics.

In most countries, in terms of the question “To me, quality is most important in terms of...” respondents do not rate the quality of *work done for others* as high as the other options respondents chose from, including services, tangible objects and time. As shown below, across all the countries, work is most often ranked as least important, while tangible objects, time, and services are more often ranked as most important. For instance, respondents in Brazil and the USA prioritize time, respondents in China, Turkey and Indonesia prioritize objects, and respondents in Germany and India both equally prioritize objects, services, and time. The USA and Indonesia are the only countries for which *work done for others* is not the least important category (Fig.4.1).

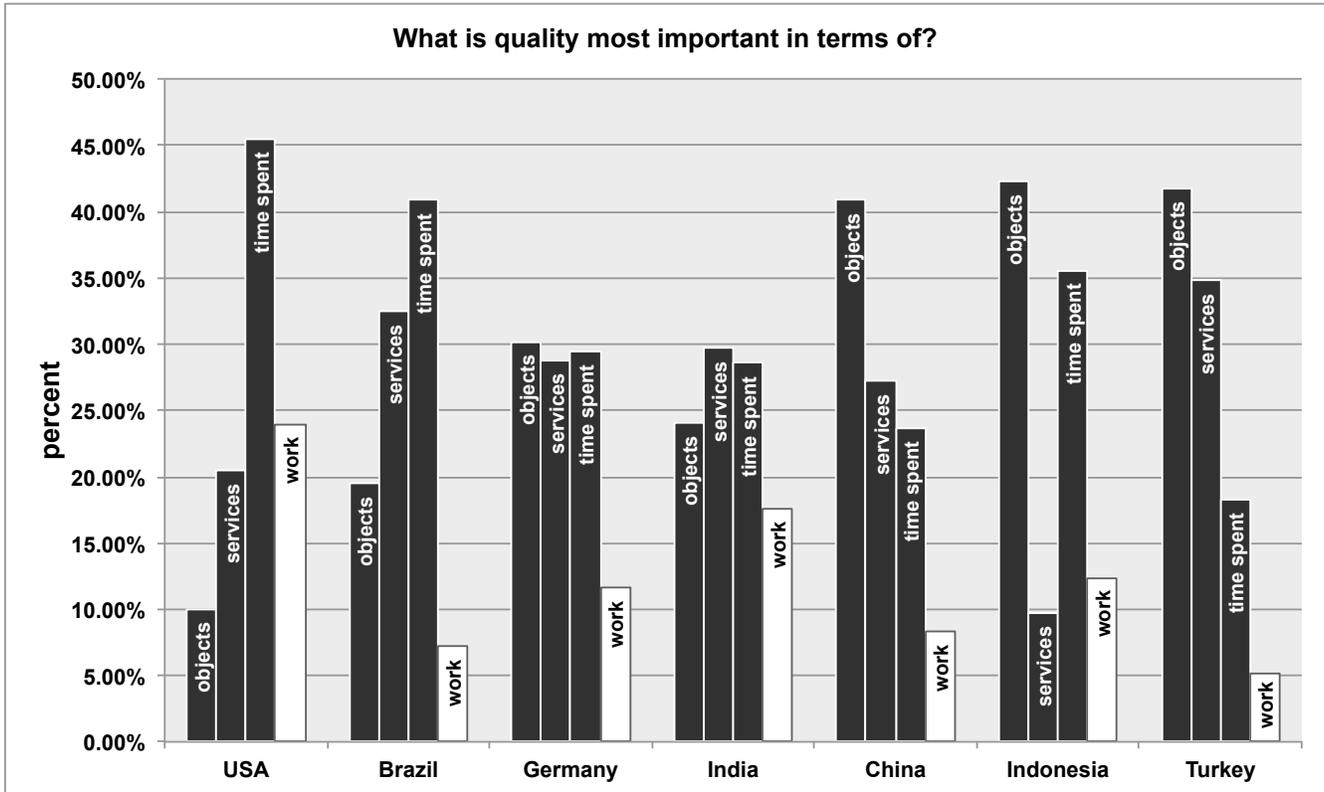


Fig.4.1– Percent of respondents in each country who answered the question “To me, quality is most important in terms of...”

Perhaps unsurprisingly, an appreciation of the quality of work done *for* others is related to how respondents see work done *by* others. Respondents who prioritize the quality of work done *for* others also had a very clear opinion about what constitutes quality work done *by* others. They also predominantly think about quality “all the time” before spending time or money on paid work. This state of affairs is in contrast to respondents who said quality is not most important in terms of work provided for others: those respondents do not think as consistently about quality before spending time or money on work.

Socioeconomic status, thinking about quality in terms of paid work done *by others*, and respondents’ definitions of what makes work “excellent,” are all significant predictors for how respondents ranks the importance of work done *for others*. Specifically, those who prioritize the quality of the work they did for others are individuals who: 1) Are more likely to be of lower SES¹⁹; 2) Always consider the quality of work done by others before investing their own time or money²⁰; 3) Believe that excellent work is defined by the amount of effort put in²¹.

Country-specific information

United States

The US and Indonesia are the only countries in which for respondents, work is considered more important in terms of quality than in terms of services. Furthermore, only for US respondents is work considered to be more important than tangible objects.

Germany

Of those Germans who respond that quality is most important in terms of work provided to others, the greatest percentage of respondents are aged 50-59. In contrast, of those Brazilians, Indians, and Americans who respond that quality is most important in terms of work provided to others, the greatest percentage of respondents are aged 20-29.

Of those Germans who respond that quality is most important in terms of work provided for others, about 70% report having a very clear personal opinion of what quality means in terms of paid work for others, which is higher than the sample as a whole (52%).

In addition, for those respondents who indicate that quality is most important in terms of work provided for others, a greater percentage have a very clear opinion of what quality looks like in terms of work for others. They think about quality all the time before spending time or money on paid work for others, compared to respondents who said quality is not most important in terms of work provided for others.

Turkey

Turkey did not show the same predictive relationship between SES, “excellence” definition, and prioritizing the quality of work done for others as other countries. The only factor which seems to significantly change the odds of prioritizing work done for others is how frequently the respondent thinks about the quality of work done *by* others; however, ANY amount of thinking about the quality of work done by others, even if it is infrequent thinking, is enough to significantly increase the odds of prioritizing the quality of one’s own work over the quality of objects, services, or time.

5: Use of Writing Implements

Survey Questions 74, 75, 78, 79, 82

Technology is rapidly replacing the use of traditional writing implements – such as pens, pencils, and markers – in a number of domains. In many instances, using a computer or other technological instrument, as opposed to a traditional writing implement, makes a task easier or more efficient. Conversely, the use of a writing implement may reflect the user’s effort, care, or attention to detail for a particular task. Therefore, opting for a writing implement may reflect something about the user’s understanding of the construct of “quality.”

Here, we examine how the use of writing implements reflects our respondents’ understanding of quality in several spheres: 1) the relationship of writing implements to technology; 2) the types of respondents who care about the quality of their writing implements; 3) the types of writing implements used in and outside of the home; 4) predictions of future use of writing implements. Please note that because some of these questions were added part way through our study, data were not collected for the United States and Brazil for the latter two spheres.

Approximately two-thirds of the sample indicates that they did not ever feel the need to use a writing implement as opposed to using a computer, but this varied as a function of the respondent's country of origin. Approximately 80% of respondents from Brazil, India, China, and Turkey indicate they did not feel the need to use a writing implement, while respondents from Germany, the United States, and Indonesia are more evenly split. Across the whole sample, individuals who indicate that they did not feel the need to use a writing implement as opposed to a computer are younger²² than those who indicate that they sometimes feel the need to use a writing implement. The U.S. is the only country whose respondents are *more* likely to indicate that there are times that they feel the need to use a writing implement as opposed to a computer (Fig. 5.1).

Across the entire sample, there is no observed relationship between SES and perceived need to use a writing implement. However, older respondents, women, and those who prefer traditional means of doing things are all significantly more likely to indicate that they sometimes feel the need to use a writing implement.²³

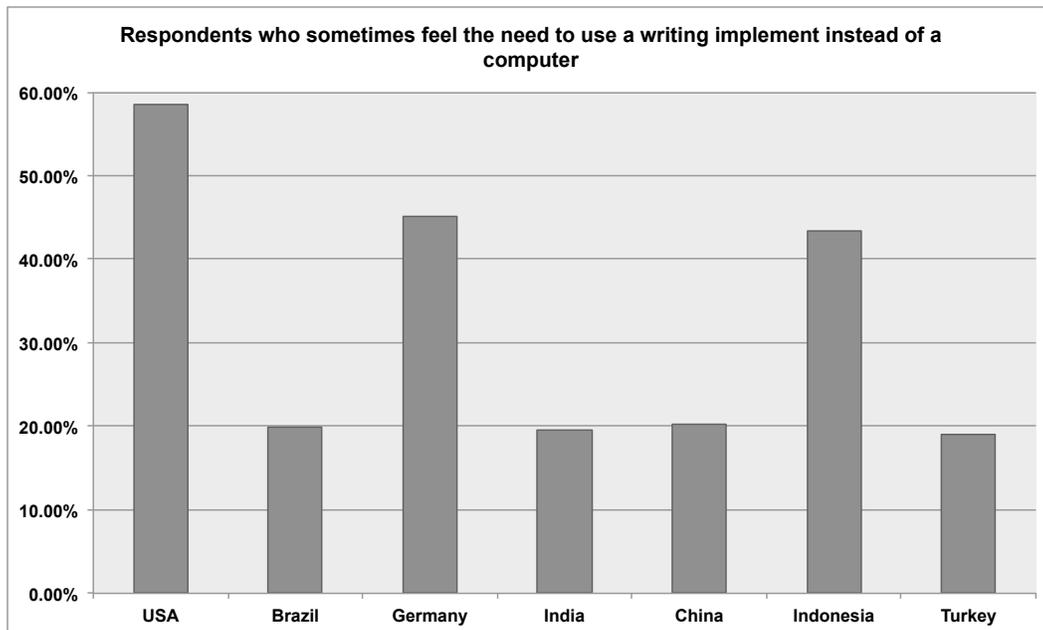


Fig.5.1 – Responses to the question “Do you ever feel the need to use a writing implement, as opposed to using a computer?” sorted by country.

With respect to quality of writing implements, the majority of the sample (approximately 65%) indicate that they do not typically care about the quality of the writing implement that they use. Germany has the largest percentage of respondents who feel this way (83%), while the U.S. has the fewest (62%). Within each country, these splits do not meaningfully differ based on the respondent's SES, gender, age, or preference for digital versus traditional media.

However, while respondents may not report feeling *compelled* to use a writing implement over a computer or other technology, their responses to questions about how frequently they *actually use* writing implements in their daily lives provides a different picture. Across the entire sample (bearing in mind that these questions were not asked of the U.S. or Brazil

respondents), 74% of respondents indicate that they use a writing implement at least a quarter of the time for daily activities around the home. Use of writing implements for daily home activities is particularly prevalent for German respondents, with 65% indicating that they use writing implements for at least three-quarters of such tasks. Gender, age, and SES are good predictors of the use of writing implements in the home, with older, lower SES female respondents most likely to indicate that they would use writing implements for those tasks.²⁴

Similarly, approximately 72% of respondents across the sample indicate that they use writing implements at least a quarter of the time for daily tasks outside of the home (again, with German respondents being the most likely). Age and gender predict use of writing implements outside of the home, again with older females being the most likely to endorse frequently using writing implements for those tasks. SES is a poor predictor of writing *outside* of the home.²⁵

With respect to the types of writing implements that are used most frequently by respondents – pencil, pen, or marker – the majority of the sample (~79%) reports using a pen most frequently. This pattern is true in each country surveyed, regardless of income, age, gender, or preference for digital versus traditional media. However, of interest is the fact that respondents from China also frequently report using a marker as their preferred writing implement (~22% of respondents), while all other countries has 3% or fewer respondents in that category.

When asked what type of writing implement respondents would *prefer* to use, again, the majority of the sample (~72%) respond that they would prefer to use a pen. Again, this finding is true regardless of income, age, gender, or preference for digital versus traditional media. Related to the type of writing implements typically used, a disproportionately large percent of Chinese respondents indicates they would prefer to use a marker (17.5%). Respondents from all countries indicate that they would prefer to use pencils more frequently than they report actually using them.

Respondents are also asked to predict their future use of writing implements: whether they thought their usage will increase, decrease, or remain the same. Here, there is no distinct overall pattern across the four responding countries (Germany, India, China, and Indonesia). The majority of German respondents (~80%) believe that their use of writing implements will remain the same; respondents from India split evenly across the three categories; most Chinese respondents believe their use of writing implements will remain the same (~45%) or decrease (~40%); many Indonesian and Turkish respondents believe that their future use of writing implements will increase in the future (~45% for Indonesia, ~40% for Turkey).

Country-specific information

United States

The United States is the only country whose respondents indicate that they are more likely to use a writing implement than a computer. Within the U.S., these splits hold true regardless of respondents' SES and preference for traditional versus digital media but

not for age or gender²⁶. Older respondents are more likely to indicate that they sometimes feel the need to use a writing implement, and female respondents are significantly more likely to indicate the need to use a writing implement (male respondents are more evenly split).

India

India and Indonesia both show a similar relationship between age, income, and predictions about their future use of writing implements. In both India and Indonesia, young participants in the bottom 50% of income are the most likely to predict that their future use of writing implements will increase.

India is the only country that shows no distinct preference for believing that future use of writing implements will increase, decrease, or remain the same.

| | Germany (%) | India (%) | China (%) | Indonesia (%) | Turkey (%) | Total (%) |
|-----------------|-------------|-----------|-----------|---------------|------------|-----------|
| Decrease | 12.8 | 34.1 | 38.1 | 31.8 | 39.5 | 29.1 |
| Same | 79.1 | 31.0 | 45.8 | 22.3 | 31.3 | 41.5 |
| Increase | 8.1 | 34.8 | 16.1 | 45.9 | 29.3 | 29.4 |

China

China is the only country for which a marker is the second-most popular writing implement.

| | Germany (%) | India (%) | China (%) | Indonesia (%) | Turkey (%) |
|---------------|-------------|-----------|-----------|---------------|------------|
| Pencil | 7.4 | 12.5 | 10.5 | 16.9 | 26.3 |
| Pen | 89.4 | 84.3 | 67.9 | 81.9 | 72.1 |
| Marker | 3.2 | 3.2 | 21.7 | 1.2 | 1.6 |

Younger respondents from China (age 18-35) use markers more frequently than any other demographic (35%).

Indonesia

Indonesia is the only country that the majority of respondents believes that their future use of writing implements will *increase*.

| | Germany (%) | India (%) | China (%) | Indonesia (%) | Turkey (%) | Total (%) |
|-----------------|--------------------|------------------|------------------|----------------------|-------------------|------------------|
| Decrease | 12.8 | 34.1 | 38.1 | 31.8 | 39.5 | 29.1 |
| Same | 79.1 | 31.0 | 45.8 | 22.3 | 31.3 | 41.5 |
| Increase | 8.1 | 34.8 | 16.1 | 45.9 | 29.3 | 29.4 |

Turkey

Male and female respondents differ significantly in their predictions of future use of writing implements. More female respondents than male respondents believe their future use of writing implements will stay the same (35.4% of females, 27.1% of males), while more male respondents believe their future use of writing implements will increase (37.2% of females, 41.8% of males).²⁷

Significantly more Turkish respondents indicate that they most frequently use a pencil (26%), relative to other countries (12%).²⁸

Appendix I: Statistical Tests

| | |
|---------------|---|
| 1. Excellence | |
| 1. | <p>Gender and clarity of opinions on quality (choosing “Very clear” over any other opinion)</p> <p>Services: Females > Males, Chi-square(3) = 17.81, $p < 0.001$ Durable goods: Females = Males, Chi-square(3) = 5.27, $p = 0.15$ Non-durable goods: Females > Males, Chi-square(3) = 63.51, $p < 0.001$ Paid work: Females > Males, Chi-square(3) = 15.61, $p = 0.001$ Leisure: Females > Males, Chi-square(3) = 9.25, $p = 0.03$</p> |
| 2. | <p>Linear regression of clarity of opinions about quality on SES</p> <p>Services: $R^2 = 0.02$, $B = -0.07$, $p < 0.001$ Durable goods: $R^2 = 0.02$, $B = -0.06$, $p < 0.001$ Non-durable goods: $R^2 = 0.01$, $B = -0.06$, $p < 0.001$ Paid work: $R^2 = 0.02$, $B = -0.08$, $p < 0.001$ Leisure: $R^2 = 0.01$, $B = -0.05$, $p < 0.001$</p> |
| 4. | <p>Gender and thinking about quality</p> <p>Services: $t(7129) = -6.88$, $p < 0.001$ Durable goods: $t(7128) = -3.89$, $p < 0.001$ Non-durable goods: $t(7128) = -6.88$, $p < 0.001$ Paid work: $t(7122) = -6.88$, $p < 0.001$ Leisure: $t(7128) = -6.88$, $p < 0.001$</p> |
| 5. | <p>Within Indonesia</p> <p>Linear regression of “How often do you think about quality in terms of...” on SES and age</p> <p>Services: $B_{ses} = -0.01$, $p > 0.55$; $B_{age} = -0.003$, $p > 0.20$ Durable goods: $B_{ses} = 0.02$, $p > 0.25$; $B_{age} = 0.001$, $p > 0.65$ Non-durable goods: $B_{ses} = 0.03$, $p > 0.2$; $B_{age} = -0.001$, $p > 0.7$ Paid work: $B_{ses} = 0.03$, $p > 0.10$; $B_{age} = -0.003$, $p > 0.20$ Leisure: $B_{ses} = -0.02$, $p > 0.30$; $B_{age} < 0.001$, $p > 0.99$</p> |
| 6. | <p>TLPS > CE = Wald chi-square(8) = 21.6, $p < 0.001$ TLPS > VLA = Wald chi-square(8) = 64.5, $p < 0.001$ TLPS > CAPG = Wald chi-square(8) = 3.43, $p = 0.06$ TLPS > HHG = Wald chi-square(8) = 54.5, $p < 0.001$</p> |
| 7. | <p>TLPS > CE = Wald chi-square(16) = 8.34, $p < 0.01$ TLPS > TM = Wald chi-square(16) = 4.84, $p < 0.03$</p> |
| 8. | Wald chi-square(12) = 560.6, $p < 0.001$ |
| 9. | Wald chi-square(6) = 3.77, $p = 0.05$ |
| 10. | Wald chi-square(12) = 1571.6, $p < 0.001$ |
| 11. | Wald chi-square(12) = 1181.6, $p < 0.001$ |
| 2. Technology | |

| | |
|----------------------------|---|
| 12. | Chi-square(1) = 2823.49, $p < 0.001$ |
| 13. | Traditional vs. Digital preference and Age: $t(5803.0) = 5.72, p < 0.001$ Traditional vs. Digital preference and SES: $t(5730.7) = -4.09, p < 0.001$ |
| 14. | Phi coefficient Preference for traditional or digital media by belief that technology improves goods Phi = -0.022, $p = 0.09$ Preference for traditional or digital media by belief that technology improves work Phi = -0.002, $p = 0.87$ |
| 3. Time Well Spent | |
| 15. | Chi-square was computed for the “Friends & Family” category versus all other categories, collapsing across the USA, Germany, and Brazil. Chi-square(5) = 1372.58, $p < 0.001$, Cramer’s V = 0.30 |
| 16. | Chi-square was computed for the “Technology” category versus all other categories, collapsing across India, China, and Indonesia. Chi-square(5) = 678.16, $p < 0.001$, Cramer’s V = 0.21 |
| 17. | One-way ANOVA treating “Clarity of opinion...” as an interval-level variable (with “unsure” responses filtered out) and “Time well spent” as a grouping variable. Based on Tukey’s HSD, <i>Work</i> differed significantly from <i>Friends/Family</i> (Mean difference = 0.10, $p < 0.01$), <i>Self</i> (Mean difference = 0.08, $p = 0.04$), <i>Community</i> (Mean difference = 0.09, $p = 0.04$), and <i>Learning</i> (Mean difference = 0.08, $p = 0.04$). |
| 18. | One-way ANOVA treating “How often do you think about quality...” as an interval-level variable (with “unsure” responses filtered out) and “Time well spent” as a grouping variable. Based on Tukey’s HSD, <i>Technology</i> differed significantly from <i>Friends/Family</i> (Mean difference = 0.15, $p = 0.001$), <i>Self</i> (Mean difference = 0.12, $p = 0.02$), <i>Community</i> (Mean difference = 0.14, $p < 0.01$), and <i>Learning</i> (Mean difference = 0.18, $p < 0.001$). |
| 4. The Role of Work | |
| 19. | Multinomial logistic regression, with “Excellent work most means...” and “How frequently do you think about the quality of paid work done by others” as factor predictors and SES as a covariate predictor of “To me, quality is most important in terms of objects/services/work for others/time.” SES: One unit increase in SES increased the odds that a respondent would select “Services” over “Work done for others” by 8.6%, Wald chi-square(1) = 6.75, $p < 0.01$, Exp(B) = 1.086. |
| 20. | Multinomial logistic regression (described above) Selecting “I always think about the quality of paid work done by others before investing my own time or money” decreased the odds that a respondent would select... <ul style="list-style-type: none"> • “Objects” over “Work done for others” by 50.7%, Wald chi-square(1) = 10.27, $p = 0.001$, Exp(B) = 0.493. • “Services” over “Work done for others” by 49.8%, Wald chi-square(1) = 9.65, $p = 0.002$, Exp(B) = 0.502. |

- “Time” over “Work done for others” by 58.4%, Wald chi-square(1) = 16.49, $p < 0.001$, Exp(B) = 0.416.

21. Multinomial logistic regression (described in [19])
 Selecting an effort-related response (e.g., “Doing more than is required”, “Giving 100% effort”) to Q70 decreased the odds that a respondent would select...
- “Objects” over “Work done for others” by 37.4%, Wald chi-square(1) = 10.32, $p = 0.001$, Exp(B) = 0.626.
 - “Services” over “Work done for others” by 43.3%, Wald chi-square(1) = 14.48, $p < 0.001$, Exp(B) = 0.567.
 - “Time” over “Work done for others” by 38.9%, Wald chi-square(1) = 11.75, $p = 0.001$, Exp(B) = 0.611.

5. Use of Writing Implements

22. $t(4033.66) = -8.02, p < 0.001$

23. Binary Logistic Regression describing need to use a writing implement rather than a computer accounting for age and SES.

| | B | S.E. | Wald | df | Sig. | Exp(B) |
|-----|--------|-------|--------|----|-------|--------|
| Age | 0.014 | 0.002 | 66.217 | 1 | 0.000 | 1.014 |
| SES | -0.017 | 0.019 | 0.777 | 1 | 0.378 | 0.983 |

Chi-square for the relationship between gender and need to use a writing implement:
 Chi-square(1) = 4.70, $p = 0.03$, phi = -0.03.

Chi-square for the relationship between traditional/digital preference and need to use a writing implement:
 Chi-square(2) = 23.19, $p < 0.001$, phi = 0.06.

24. Linear regression describing the amount of time respondents use writing implements INSIDE the home on age and SES.

| R | R ² | Adjusted R ² | Std. Error of the Estimate |
|------|----------------|-------------------------|----------------------------|
| .197 | 0.039 | 0.038 | 1.438 |

| | B | Standard error | t | p-value |
|-----|--------|----------------|--------|---------|
| Age | 0.019 | 0.001 | 13.598 | 0.000 |
| SES | -0.073 | 0.016 | -4.681 | 0.000 |

More women than men use writing implements in the home, $t(5063.0) = 6.57, p < 0.001$

25. Linear regression describing the amount of time respondents use writing implements outside the home on age and SES.

| R | R ² | Adjusted R ² | Std. Error of the Estimate |
|------|----------------|-------------------------|----------------------------|
| .107 | 0.011 | 0.011 | 1.49 |

| | B | Standard error | t | p-value |
|-----|-------|----------------|-------|---------|
| Age | 0.011 | 0.001 | 7.755 | 0.00 |
| SES | 0.003 | 0.016 | 0.189 | 0.85 |

More women than men use writing implements in the home, $t(5064.6) = 3.11, p = 0.002$

26. **Within the U.S.**
Binary Logistic Regression describing need to use a writing implement rather than a computer accounting for age and SES.

| | B | S.E. | Wald | df | Sig. | Exp(B) |
|-----|-------|-------|-------|----|-------|--------|
| Age | 0.015 | 0.005 | 9.118 | 1 | 0.003 | 1.015 |
| SES | 0.027 | 0.053 | 0.269 | 1 | 0.604 | 1.028 |

Chi-square for the relationship between gender and need to use a writing implement:
Chi-square(1) = 11.57, $p = 0.001$, $\phi = -0.117$.

Chi-square for the relationship between traditional/digital preference and need to use a writing implement:
Chi-square(2) = 1.95, $p > 0.35$.

27. **Within Turkey**
Future use of writing implements by gender
Chi-square(2) = 8.00, $p = 0.02$

28. **Within Turkey**
Preferred writing implement = pencil (Turkey compared to other countries)
Chi-square(2) = 591.66, $p < 0.001$