A Holly Sphar
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Effects of the Freecycle Network

For not even two years now, a silent movement has been slinking around the country. It is not a movement to impeach the president or to send cookies to our troops in the Middle East. The movement is to give away your or take someone else's unwanted items.

Freecycle was started by an employee at a recycling center in Tucson after they received a number of pieces of perfectly good office furniture and didn't want to just throw them out. The employee knew that if he couldn't give the items away that they would have to go to the landfill and so he created a website to offer these usable items to whomever wanted to pick them up. As other people, from across the country and around the globe, heard about it, they decided it was a good idea and started their own local chapters.

Give an object. Take an object - That's all there is to it. No money is exchanged. In fact, that is against the rules and will get a person kicked out. There are no requisite meetings to attend. It is not even required that one believes in the group's main goal, to promote waste reduction. The only thing one needs to join this grassroots movement is access to e-mail.

A regional Freecycle (FC) group is run on a listserve ("a family of programs that automatically manages mailing lists, distributes messages posted to the list and other tasks" from ceres.ca.gov/tcsf/IRG/irg_glos.html) so the technical requirements for participation are much fewer and members need not even have a color monitor to participate. The only requisite for membership is e-mail access.

The way Freecycling works is simple; first a member posts her message to the list; either to give an item away (OFFER), to say that an item has been picked up (TAKEN), or to ask for an item (WANTED), second someone who is interested replies to the offerer, and lastly, the two parties decide where to meet for the hand-off.

Each group is run by its own group of moderators who make their own judgment calls as to posting rules. Most groups allow only the three types described above but occasionally some other type of message slips through. From my correspondence with various moderators it seems that the larger the group gets, the more cumbersome it becomes to allow non-topical posts.   This is because when one belongs to a FC group, her e-mailbox quickly becomes filled with offers and takens and wanteds (especially in more urban or particularly active groups). By keeping off-topic messages from being sent to everyone, the moderators hope to lessen the cost of membership of a perpetually full mailbox, and thus retain more members.

Aside from the excessive amount of e-mail that one receives, there are a few other burdens placed on users due to technical issues. A few of them are the lack of search capabilities, the need for a dynamic, item-status monitor, and that there is no system designed to promote social responsibility (i.e.: user ratings, contributions). The extra costs created by the search in-ability can be placed on either the person looking for an item (prospective taker), who has to

spend extra time searching for offered items. This time would also be dramatically cut if there were some system that would let the searcher know if an item had been taken or not (the status monitor), which when done manually is a big enough time-drain to prevent most people from looking for unclaimed offers. The last, largest, and what would probably the most controversial technical addition, social responsibility metrics, would be able to prevent irresponsible and ill-intentioned members from burdening other group members with the costs of time and mental anguish by giving better measures upon which trust-giving can be based (Glass, 2000) but may be costly to implement.

As far as group dynamics go, the various regional groups as well as the network as a whole have their share - as any online community will but it seems that, of the FC-related friction that does occur, most of it takes place off of the groups' main lists. In fact, there are quite a few websites with rants about bad experiences with FC or disapproval of its policies. There are even a couple of separate listserves where members discuss problems with members, moderators, and group/network politics (i.e.: http://groups.yahoo.com/group/darksideoffreecycle/). However, if there is any repercussion from a dispute, it often (at least as often as something that occurs) seems to be someone leaving the group, either willingly or because she has been banned from further group participation. This is a something that could have the effect of abnormally normalizing the attitudinal picture of any one group dramatically.

Group goals

The one thing that at first appears to unite the group and create a sense of member affinity is the goal of waste reduction. On the umbrella FC network main page, this is how that goal is stated:

> "The Freecycle Network was started in May 2003 to promote waste reduction
> in Tucson's downtown and help save desert landscape from being taken over
> by landfills. Freecycle provides individuals and non-profits an electronic forum
> to 'recycle' unwanted items. One person's trash can truly be another's
> treasure!"
>
> *From www.freecycle.org*

As impled in this statement, FC is essentially a voluntary recycling program, which, according to environmental theories, ought to make it more effective. The advantage to voluntary recycling is that the people who participate do so willingly, which means that the personal benefit they get from recycling *always* exceeds any personal cost they experience (Porter, 2002)

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The personal benefit received from pleasing oneself through giving or acquiring allows many users to overlook less than successful deals and group interactions based on the premise that they are helping the environment. As can be seen in many FC user testimonies, many of them are doing it because they feel that it is a good thing to do for the environment and society.

Any theorized beneficial effect of FC is a very difficult premise to test, though. There are simply too many affecting factors that need to be accounted for such as:

- Even though post-consumer waste (PCW) does account for a large amount of garbage, it is still not the dominant source of waste in landfills. When one considers that a large part of PCW includes product boxes and wrappers, which, of course, are not traded on FC, it is questionable how significant the effect of freecyclng really is. The number that would be needed to be known in order to determine this is the exact amount of material that has been diverted from the landfills.
- When a freecycler (FC'er) takes an offered item, how long does the item stay with him? What if it did not meet expectations? Does it go back on the listserve and continuously switch hands indefinitely? It can be assumed that eventually the item is going to end up as garbage some day so here one needs to know both the amount of time the item stays in use and the length of time for which this is being considered (1year, 2years, 20, 50, etc).
- Who is receiving the benefits when an item is freecycled (the poor, the rich, the government, etc.)? What kind of benefits are people receiving (monetary, psychological, social, etc)? How can these differing effects that exist in different pedagogical domains be compared (quantitative measures, qualitatively)?
- If an item were not FC'ed, where else might it have gone? (This is one question which is addressed later in this study)
- ad infinitum…

Each answer to one of these questions exists in its own realm - Waste Management, Consumer Theory, Social Theory, Philanthropic Studies – and each may affect the others confusing the true results.

Despite the problems of differing metrics and indeterminate measuring techniques, there is one question that stands out to me whose answer could have serious implications: *Can or Does Freecycle change the shopping habits of its members?*

User Intentions

Before addressing this question directly, it should be mentioned that since there are so few requirements for membership (registration with Yahoo! Groups is the only universal

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requirement, with some of the larger groups requiring zip code or a short statement on why an applicant wants to join) one might think that this would mean that a fairly heterogenous pool of ideologies would be created. This appears to be only partially the case, though. The user types that I have observed can be generally categorized as follows:

1. environmentally conscious – members who, to whatever degree, attempt to follow the recycling mantra, "reduce, reuse, recycle," and advocate man leaving as little a "footprint" on the Earth as possible. ("i joined to pass on my stuff and to help out the environment.")
2. simple-livers – members who are trying to simplify their life by decluttering. ("I realize how much stuff I have and I don't need anymore of it!")
3. financially limited – members who are looking to ease their financial burden. These FC members usually have a lower income and may or may not have children. ("I needed clothing for Church because it is too much for me right now…")
4. desire-impulse consumers – members who, for whatever reason (i.e.: because it's free and b/c it could be useful, because they were planning on getting one anyway), just like to get things ("I use Freecycle for finding things I would like, but am not interested in purchasing, or have a friend that could put it to use.")
5. networking opportunists – members looking to make social connections ("We gave away a window A/C unit last week. The guy that we gave it to gave my number to a friend who was looking for a laptop since his wasn't working right. I had the exact model that he was looking for …")

Of course, no actual member fits perfectly into any one category. At one time or another, some may fit any or even all of them.

While above they are defined as user types, their descriptions can also be used to describe different types of consumers. Here, social ideology is reflected in consumption patterns, which is in turn related to personal identity (Edwards, 2000). While it may at first seem counter-intuitive then, a site whose original purpose was purely environmental has shown to be just as useful for consumerist culture.

With FC, though, consumerist culture does not imply corporate (for example) monetary interests.   Freecycle has taken typical preconceptions of consumerism from much of contemporary socio-economic theory and placed it in a somewhat different light. Up until now, consumerism has always been thought of as it relates to its associative economic theories. What does one call consumption without any money involved? "Trading" and "bartering" do not fit because the deals are not necessarily exchanges. The term that Freecyclers use to describe a transaction is "gifting," which carries with it all the favorable connotations of the consumer practice of gift giving.

Now with some different user intensions described, though, it adds definition to the original question, which now becomes, *if one takes the money out of consumer transactions, what kind of long or short-term effect will this have on personal, regional, or national economies?*

Study Methodology

This study was designed with the intension of answering or giving insight into that question through the question asked earlier: does Freecycle change the shopping habits of its members? If it can be shown that upon receiving an item that the FC'er then chose not to go out and buy an equivalent item in the store, then very simply, that is money saved.

A questionnaire was developed that had from 18-25 questions. Most were multiple-choice with an open-ended question where one could explain themselves given occasionally. The questions were placed into three groups: 1) demographic information, 2) FC use (how the respondent uses FC), and 3) a section specifically to determine change in shopping habits.

It was delivered in three rounds, with a varying numbers of questions being modified and/or added where information gaps were observed in each new round. Therefore, some questions may show a smaller surveyant pool to whom the question was posed.

Most FC'ers were notified of the survey's location through a post to their FC group's listserve, although with one group the link was posted in their chatroom. Before my request could be posted, though, I needed to contact the specific group moderators and explain what the purpose of the study was. Some moderators added their own comment stating that they had approved the survey, which was an added credibility boost.

The groups I chose were all those of major cities, which were also some of the larger groups, the hope being that there was a better chance of getting more responses by letting more people know about it. Of the 19 groups that I contacted, 10 preferred that I didn't (for the reasons that I mentioned briefly above) and there were 9 that agreed to let me post the survey link: **round 1** – Houston and Miami | **round2** – DC and Denver | **round 3** - Baltimore, Philadelphia, Wichita, Ann Arbor, and Chicago. The combined member totals given for the nine was, at the time, 37,966. Of them, 844 took the survey, giving a response rate of about 2.2%.

There are some aspects of the survey delivery that should be noted. The first is that all respondents were self-selected. Because of this, it is impossible to know whether a true cross-section of all Freecycle users was revealed. It could have been that the only people who responded were those who were very enthusiastic about FC for one reason or another and may not represent the majority of FC'ers. Of course, the opposite could be have been true also; where everyone who **really** loves FC is spending so much time gifting and taking that they didn't have time to respond and those that I did receive were the luke-warm members. These two scenarios are very possible but also very extreme and not very plausible.

One group that is definitely not represented is that of FC dropouts – people who tried FC and stopped using it. It is known that this is something that definitely happens although the exact

extent is not. As this is not a study on the effect that actual users are having and how they are being affected, though, this group of dropouts does not apply.

Another possible shortcoming is that the users were also self-reporting, something which compounded the possibility for error with the addition of the aspects of time and memory. Many of the most important questions rely on the respondents to recall past FC facilitated transactions. Some ask them to remember past *behavior* and compare it to the present. With reflective self-reporting, the respondent's answers can be affected by numerous factors. For instance, a user's ideology can color his/her memory based on self-image and opinion. However, due to the short period of time over which this study was conducted it seemed like the most useful way to be able to show effects over time.

Despite the exclusion of a large portion of FC users from the results and the implicit problems carried with self-reporting, some valid conclusions can still be drawn.

Data Collection and Results

population – The first thing to note in the initial section, demographics, is that there were some questions typical of Internet related questionnaires not included: educational level, race, and wired lifestyle. None of these was included because either it was decided that other questions addressed the issues well enough for the scope of this study, because they seemed irrelevant to the topic question, or because I did not want to bore the respondents too early in the answering process.

The main questions users were asked for in this portion were their approximate age, marital status, number of children, and household income. All were in multiple-choice format so that respondents did not feel that they were divulging personal information.

Options for age were divided up very

fig 1 – Freecycle user ages

generally into somewhat vague, *stereotypical* stages of life: 18-21 (young adult - still free from many responsibilities, searching and testing one's self and society), 25-34 (full-fledged adulthood - a transformational stage where many people are defining themselves more clearly by giving
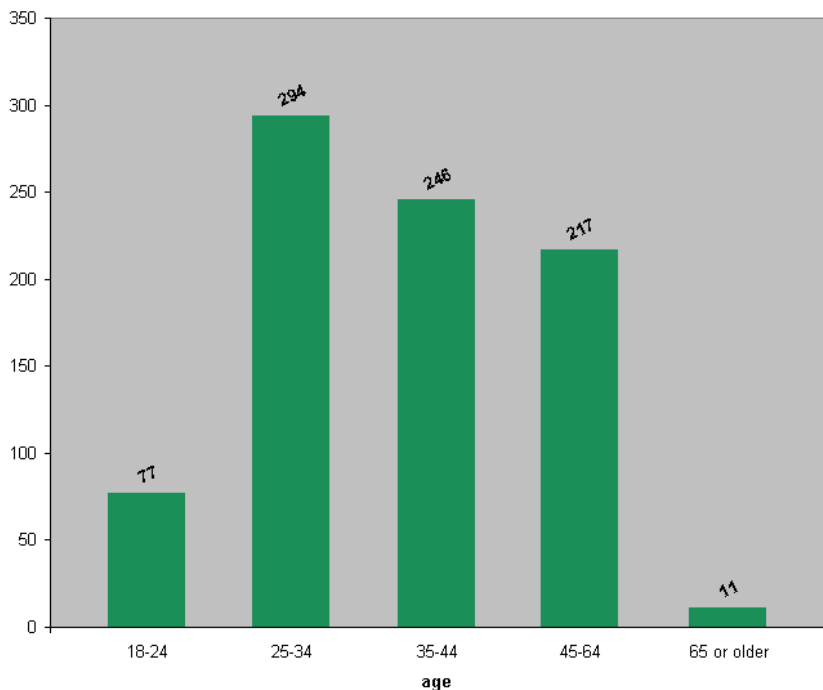
their life more personal direction.), 35-44 (middle age – more solidly developed sense of self and of place in the world, still supporting children), 45-64 (middle age – firmly set in and sure of one's ways), 65 or older (golden years, more contemplative).

Through initial web research of visiting chat-rooms, blogs, and other web-based sources, it was estimated that the majority of FC'ers would fall into the second two age groups. It is possible or even probable that the 45-64 years category, if broken into 45-54 and 55-64 would complete the picture of a slightly skewed parabolic curve, which seems to be to emerging (**fig 1**).

As this point, it was still unknown, how income would play into this "giving network" but when the results for children and income were put into graphical format and compared with some of the open-ended answers from other questions, some FC user personae and situations could be sketched (**fig 2**). The first and most obvious thing is that the population bulges in the far back corner, where income is lower and, surprisingly, there are no children. However it should be noted that the peak is not at the lowest income level. In fact, whether looking at members with 3 or moor, 1-2, or 0 children, there are fewer FC'ers from the lowest income bracket. One possible, stereotyping reason for this could be that people with the lowest incomes are not as likely to have daily Internet contact.
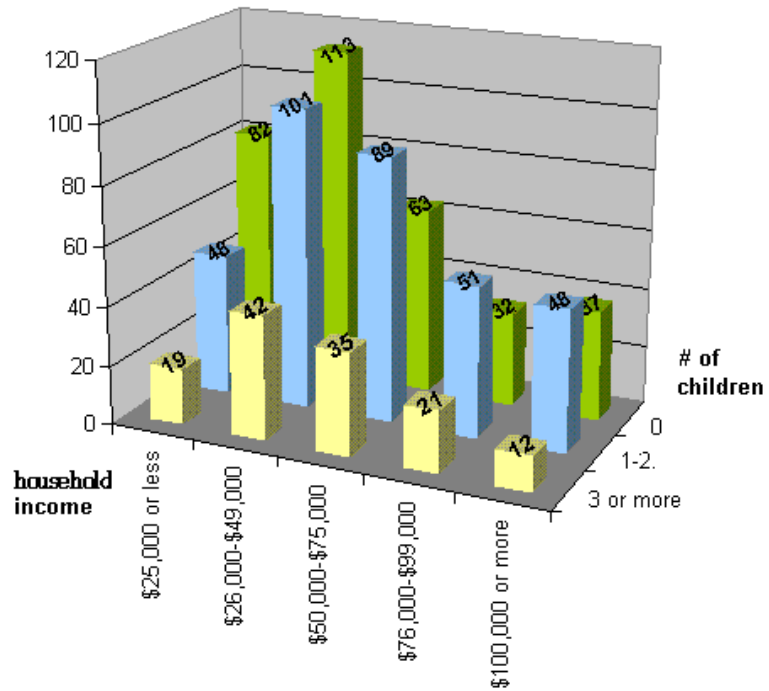
For each progenial level (# of children), the number of Freecyclers drops off as household income rises, connoting that financial situation plays a fairly large part in determining FC use. This is especially dramatic in users with no children.

fig 2 – income and number of children to Freecyclers

It also appears as if the amount of free time a person has plays a significant part for users as is perhaps evidenced by the steep drop in the number of users with 3 or more children. This could be explained by other factors but as children demand a significant amount of attention it makes sense that the more children one has, the less time that can be spent Freecycling.

economic effects – Knowing that a significant number of members, whether they are aware of it or not, are using FC for budgetary reasons is an indicator as to what the final outcome to this report should be. Here, the abbreviated time frame for the study was especially problematic as to

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the available methods by which monetary impact could be determined. The method that I ended up using is far from scientific and relies on averages, estimation, and assumptive reasoning. Thusly, the results may be quantitatively inaccurate but it was believed that they should make trends stand out clearly.

In the third section of the survey there were several questions that asked for the number of times that respondents decided not to make a purchase based on receiving an item on FC and a much broader and self-judgmental question, "Since joining Freecycle, how has your shopping online, in stores, or from catalogs for non-food items changed? I shop: More | About the Same | Less". From this last question, about 15% of the respondents chose "Less." In their comments, many FC'ers went a little further in explaining their answers:

- "I tend to see if I can get it from someone on Freecycle first before I buy it"

- "i don't waste money like i use to"

- "Because instead of spending [sic] money on things when people are giving it away."

- "I've gotten items that I would have gone out to purchase if I hadn't received."

- "I'm checking freecycle first for items I want, to reduce costs. It feels good to save money and also to help someone else save money."

In order to back up these testimonies, six broad categories of items were given and respondents were asked whether they had ever deferred from purchasing such an item since becoming a Freecycle user. The categories were created to be as inclusive as possible while being succinct and being able to keep distinct boundaries. The lack of certain categories may have caused some items to be listed in more than one place but hopefully this was not the case.
Respondents could choose that they had deferred purchase from each category "once", "twice", or "three or more times." Next all Freecycle digests from eight of the studied groups from a two-day period were skimmed and each "taken" post was put into a database. The 281 gifted items from these two days were placed into the categories and assigned a price. The prices assigned were heavily discounted versions determined from experience at thrift shops and flea markets even though, judging from the way that many of the respondents talked about it, they clearly meant they were choosing not to buy am item *new*. Also, most of the items were further discounted to be sure that there was no overestimating. The average price was determined for each category and multiplied by the number of differed purchases for the year. (**fig 3**)

	# deferred purchases	estimated avg cost $	$
Tools/equipment:	113	15	1695
Household Items (furniture, kitchen, decorative, etc):	242	12	2904
Computers/Electronic:	108	20	2160
Reading Mat./Music/Movies/Toys (entertainment):	110	5	550
Clothing & Personal Items:	133	6	798
Misc. Supplies (tape, boxes, etc):	88	7	616
		total	**$8,723**

fig 3

The average length of time in FC for all 844 respondents was 6 months (asked in the first survey section) so I doubled the $8,723 and divided this by 8 (for the groups) to get an estimated $2,180.75 saved each year collectively saved by an active Freecycle group from a metropolitan area and surrounding area.

$2,180 does not seem like much for an average group with over 4000 members; until one takes into account that only %15 of those who took the survey said that they felt that they shopped less since joining. Now if that percentage is taken from an average city FC group of 4200 there are only 630 people who are splitting the economic benefits of Freecycling and saving… $3.46.

analysis – That was surely less than I expected, which made me take a look back at my data just to make sure everything was lined up correctly. The survey numbers looked alright but it appeared that the only problem was with some assumptions that were made at various points during the calculations:

1. The method for pricing the approximate value of the taken items was surely not the best and most likely inaccurate. Probably I overcompensated in trying to price the item as if it weren't in good condition. Also, there were some items such as the many stoves that were well undervalued because I was unsure of their quality. In future continuation of this work, another possible method of gathering prices might be to find the comparable *new* items whose purchase would have been subverted by the gifted item.
2. While Survey respondents clearly took more items than they deferred purchase of, during the value estimation of taken items, each item, no matter how trivial, was included in the average price. It is more likely that items that supplanted the wish of a new item were in good condition and usable. In future continuation of this work it would probably be best to follow up with some of those who differed purchase for more specifics.

3. With such vague multiple-choice answers, it is possible that the attempt to place such a precise a number on it was unfounded. In future continuation of this work some of the answers should be ungeneralized for certain questions.

changed behavior – Now let's suppose the data is fairly accurate and that a few users get a substantial benefit while the vast majority do not, a situation that many people have attested to ("by the time I get the offers [the items] are already gone and I check all the time. I am home all day.") Then one possibility would be that FC'ers actually might really be working for what the group's stated goal is: to keep usable items out of landfills. Since doing other recursive inquiries would be too costly and far beyond the scope of this project (i.e.: checking change in landfill capacity, interviewing garbage collectors), questions were put into the survey that could help detect a change in user behavior. The questions for this section were similar in style to the one discussed earlier that collected self-perceived change in shopping habits.

The two questions were, "Before joining Freecycle, how did you get rid of unwanted items?" and "Since joining Freecycle, how do you get rid of unwanted items?" Respondents were instructed to rate the frequency with which they got rid of items using five different methods: giving items away to friends, family, or FC'ers, giving items to charities, selling items, throwing stuff away, and not getting rid of things (saving in storage).

These questions, too, relied on a data gathering technique that can be questioned as to the accuracy of its results: self-reporting. As stated before, though, I believe that for the purposes of this study, it worked fairly well.

perceived effects – The results collected do show possible minor benefits in FC users over time. For each of the five "ridding" methods that respondents were reporting on, users were given four choices: most of the time, on occasion, rarely, and never.

As can be seen in **fig 4**, the responses show positive results for most categories. (A note on reading the graphs: the term "positive" has different quantitative meanings for different ridding methods.) For the *giving to friends* category, the best possible results would be if the entire triangle in the upper left area were filled and, as can be seen, more users chose this as the method they presently use most. For kept in storage, put in trash, and sold item, each moved in the desired direction as the upper left triangle emptied out and the lower right begins to be filled indicating that users are using this method less. For *give to charity*, the results are mixed since ridding using this method is far from negative yet it appears as if donating to charities does drop quite a bit.

analysis – From these results, it does appear that FC is having an effect on the way in which users rid themselves of unwanted items. It is difficult to say, though, whether this is a good thing or a bad thing because of the drop in people donating items to charities. Many non-profits such as Goodwill and the Salvation Army have thrift shops where good items can be bought for much less than they would cost new.

If these places are not getting as many donations, are there better places for people with low incomes to find good used items (as opposed to the many shabbily made new items found at other chain stores)? Could they be using FC? It was shown in the respondent demographics that there were not as many users in the lowest income bracket so it doesn't seem like that is the answer.

It appears as if this is yet another valid question that beckons further study.

Conclusion

As the results from my study show, the Freecycle Network is an extremely interesting phenomenon that has the possibility to have significant effects in multiple realms. As has been shown many times in recent years, when a social movement takes to the Internet and can find a sympathetic audience, it can grow (or appear to grow) at an astoundingly fast rate. This rapid growth often gives the impression that there must be some significant societal impact (moveon.org, the Internet-based election campaign of Howard Dean, etc.)

However, whether these movements can truly have a quantitatively measurable, "tangible" effect on society has yet to truly be seen. In this study, when I attempted to place a specific monetary value on FC's effect, the result I ended up with appeared insignificant. But when FC'ers responded to the quantitatively reported (multiple-choice), qualitative questions ("how do you feel you have…"), a measurable impact was reflected in the results. Finally, in the long-answers, a seemingly exaggerated picture was implied as to what FC's impact might be.

These results lead to many additional, broader questions, though: What method of data collection is best for measuring group impact? What more tangible quantitative data collection methods are available? How reliable is self-reported survey data? Whatever the answer to these questions, one thing does appear to be clearly shown in this study: many small networks of users, each hoping to get something very different out of their experience, can, with little interaction between groups, still manage to form, when viewed at a distance, a cohesive whole.

As for the Freecycle network, whether the many differences between intensions, ideologies, and personal finances will continue to be overcome through sheer determination or whether the group will explode as a result of growing too quicky or whether it leads to a better world where everyont becomes a steward of their own environment, it looks like that is something that we all must wait to see.
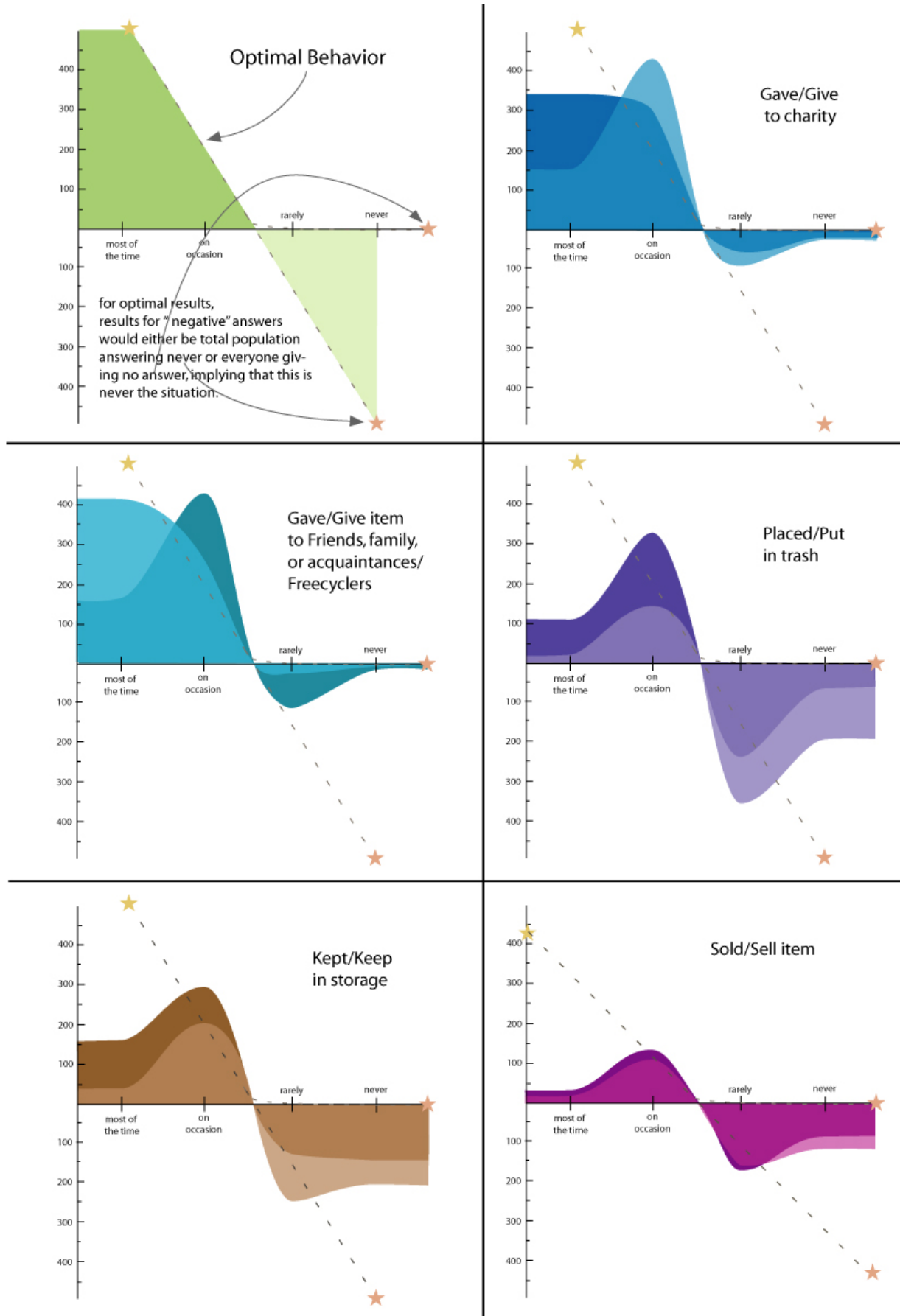
Optimal Behavior

for optimal results, results for "negative" answers would either be total population answering never or everyone giving no answer, implying that this is never the situation.

Gave/Give to charity

Gave/Give item to Friends, family, or acquaintances/ Freecyclers

Placed/Put in trash

Kept/Keep in storage

Sold/Sell item

fig 4 – Past/present self-reported behavior

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