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Finding Meaning in a Hopeless Place?

The Construction of Meaningfulness in Digital Microwork

Abstract

New forms of employment centered on the completion of simple and atomized tasks, such as online microwork, raise the question of the possible gratifications that could be derived from such work when compared to more traditional labor arrangements. Our research presented here focuses on how microworkers construct meaningfulness, based on the accounts of workers on the crowdsourcing platform Amazon Mechanical Turk. We draw upon a relational job design perspective to explore why microworkers experience meaningfulness in their work. We found four sources of meaningfulness: rewards, self-improvement, moral, and social. These four sources vary in the degree to which they were internal or external in focus, and in their level of rationalization (concrete or abstract). This may explain why such types of employment are appealing despite a lack of organizational-support structures and points to the need to better understand cue provision in virtual, platform-enabled work settings.

Keywords

1. Introduction

The rise of crowdwork, whereby online workers help organizations achieve specific tasks via digital platforms, has received increasing attention both academically and practically in recent years (Saxton, Oh, & Kishore, 2013). The basic philosophy of the practice is to delegate tasks in the form of an open call addressing a large and undefined group of people. Workers complete tasks in batches. Clients can task out these batches through platforms such as Amazon Mechanical Turk (MTurk), Crowdflower, or Upwork. These tasks differ in complexity. On the lower end, in a practice commonly called microwork, they often consist of the remote completion of small digital tasks, such as transcribing a snippet of hand-written text, classifying an image, categorizing the sentiment expressed in a comment, rating the relevancy of a search engine result, or selecting the most representative frame in a video clip (Kittur, Nickerson, Bernstein, Gerber, Shaw, & Zimmerman, 2013; Lehdonvirta & Ernkvist, 2011).

Despite the growth of the practice, the understanding of how organizations and task providers motivate microworkers is still largely limited. Different from more conventional forms of labor, microworkers are employed on a task-by-task basis and have no permanent ties to either clients or co-workers, thus working in comparative social isolation. As microwork assignments are often smaller fractions of much larger projects, they most often fail to convey a sense of the overall context and purpose into which the individual work efforts are embedded (Kaganer, Carmel, Hirscheim, & Olsen, 2013).

As such, microwork lacks the relational and organizational architecture normally assumed to provide meaningful work and to experience work as meaningful. Theories of job design traditionally assume that either the structure of a job itself, perceptions thereof, and/or social cues from others nurture meaningfulness of work (Grant, 2007; Grant, Fried, & Juillard, 2011; Hackman & Oldham,

1976; Salancik & Pfeffer, 1978). Lacking both, the question thus arises whether and when microwork can become meaningful and, if so, which sources of meaningfulness do crowdworkers perceive?

In the following, based on the experiences of microworkers, we explore several such sources of meaningfulness of digital work. We will then proceed to ask whether there are any justified pathways to improve the workers experience on the side of platforms, which ties into a wider debate around either the humanistic (meaningfulness is innate to an individual and cannot be managed by organizations, cf. Bailey, Madden, Alfes, Shantz, & Soane, 2017) or the functionalist (organizations can create an environment that fosters meaningfulness, cf. Lips-Wiersma & Morris, 2009) view of meaningfulness at work. With this study, we hope to further disentangle this relationship between objective work, relational structures, personal motivations, and work outcomes in microwork. Specifically, our study raises the question of responsibility for providing meaningful work. If the creation of meaningfulness is innate and cannot be provided or managed by companies, the question arises whether and to what extent platforms have the responsibility of providing better working conditions for crowdworkers. We will start our exploration with a background on microwork and relational labor design.

2. Labor Theory and New Forms of Labor

New forms of digital labor are emerging, ranging from irregular, unpaid forms of labor, heavily relying on hedonic gratifications ('playbor') (e.g., Kücklich, 2005), to remunerated crowdwork systems that rely heavily on the distribution of work through open calls rather than assignments. The specific institutional environment provided by on-demand platforms is facilitating a large-scale, fast-moving, dispersed, anonymous, and highly mediated workforce (Irani, 2015; Salehi,

Irani, Bernstein, Alkhatib, Ogbe, & Milland, 2015). Both recruitment and labor costs are minimal on these platforms. Workers largely do not communicate with each other, their employers, or others who could be affected by their work (Kittur et al., 2013).

These new forms of labor receive a growing amount of attention from researchers, particularly the platform Amazon Mechanical Turk (see Table 1). Studies analyze aspects such as the treatment of workers, the creativity and efforts of laborers, and the ethics of microwork. A prominent aspect is also the use of such platforms for research (e.g., Horton, Rand, & Zeckhauser, 2011).

Specifically on the experience of microworking, researchers have looked into the motivations for crowdwork. Workers generally tend to be motivated by a number of factors (Quinn & Bederson, 2011). While some workers only work occasionally and mainly to relieve boredom (Mason & Suri, 2012), an estimated third or more of workers on Amazon Mechanical Turk depend heavily or exclusively on the income generated and have done so for years, including people who are unable to find other sources of income because of disability or care responsibilities (Berg, 2016; Deng, Joshi, & Galliers, 2016).

The work conditions on theses platforms are often problematic. Deng, Joshi, and Galliers (2016) reported in their study that workers experience crowdwork oscillating between two extremes: Empowerment and marginalization. Kingsley, Gray, and Suri (2015) explains some amount of exploitation due to the highly concentrated nature of the labor market, where a few requesters post most tasks which in turn limits the ability of workers to compete for tasks that best match their skills, thus leaving them with comparatively less well paid and interesting tasks. The impact of structural factors on the experience of work are often exacerbated by the platform's policy to make human workers more invisible (Ettlinger, 2016) and the fostering of transient, task-based, and limited-time relationships that create a disconnect between the worker and the outcome of their work (Aytes,

2013). Still, workers perform such labor for reasons of remuneration and beyond and respond positively to better work conditions with lower rates of attrition and increased quantity of output (Chandler & Kapelner, 2013). Tasks that provide context, allude to social impact, topics related to workers interests, and provide cognitive benefit are conducive to this end (Brewer, Morris, & Piper, 2016).

Table 1
Studies on the Experience of Microworking

Authors	Key Findings	Sample
Barnes, Green, & Hoyos, 2015	Participation in crowdwork increases employability. Predictors of participation are, among others, individual attributes and skills, a disposition to enhancing employability, and access to resources, especially social and economic networks.	Qualitative study among two UK crowdsourcing platforms, in total 36 users and two managers.
Bergvall-Kåreborn & Howcroft, 2014	A critical overview of the MTurk platform, outlining design choices of the platform that help facilitate labor abuses.	Conceptual Overview.
Brawley & Pury, 2016	Few traditional predictors of job satisfaction seem to hold for microwork, supportive behavior among laborers are partly predicted by coworker friendships.	Workers on MTurk among them 255 US responses and 258 Indian responses.
Brewer et al., 2016	Financial incentives encourage participation, additional in-depth interviews revealed that a combination of personal and social incentives may be stronger drivers of participation, but only if the purpose of crowdwork is conveyed better.	Survey among 505 prospective crowdworkers; interviews and observations among 14 crowdworkers.
Chandler & Kapelner, 2013	MTurk work is generally of high quality. Employers can make workers work more with a more meaningfully framed task, workers however keep task quality constant.	Natural field experiment among 2471 workers from MTurk, manipulation of task framing (beneficiaries and future use). Sample split between US and India.

Deng et al., 2016	Nine shared values among workers which they want to see realized in their work environment: Access, autonomy, fairness, transparency, communication, security, accountability, making an impact, and dignity.	Analysis of narratives of 210 crowdworkers participating in MTurk.
Graham, Hjorth, & Lehdonvirta 2017	Evidence of both economic inclusion as well as examples of exclusion and discrimination among crowdworkers. Platform's market mechanisms seem to serve clients more effectively than workers.	A month of a platform's transaction records representing 61447 projects; semi-structured interviews with 125 digital workers and 27 digital work stakeholders.
Gray, Suri, Ali, & Kulkarni, 2016	Crowdworkers band together to mitigate platforms deficits, such as administrative simplifications, task scouting, reputation screening, and social support	Several data sources, an ethnography, 118 interviews, surveys, plus data analysis from crowdsourcing platforms. Furthermore, a survey with participants from the US and India, of which 451 came from MTurk, 684 from UHRS, 188 from LeadGenius, and 168 from Amara.org.
Irani & Silberman, 2016	Workers on platforms are often misconceived by employers and the public as labor simply following instructions and lacking skill and agency.	Six years of participant-observation as design activists within MTurk worker and technologist communities.
Kingsley et al., 2015	Platform design favors the market power of requester to the detriment of workers, due to market frictions such as information asymmetries and bargaining power.	317 survey responses from MTurk workers.
Zyskowski, Morris, Bigham, Gray, & Kane, 2015	People with disabilities find crowdwork an appealing form of employment due the scheduling and location flexibility it provides.	Open-ended interviews of 17 disabled crowdworkers and job coaches for people with disabilities, and a survey of 631 adults with disabilities.

Beyond the question of for which motivations crowdworkers engage in microwork, there is also the one of how meaningful they experience this work. Whether meaningfulness can or should be managed by organizations is an ongoing discussion in the meaningfulness literature (Bailey et al., 2017). On the one hand, scholars argue that organizations can and should provide meaningful work,

by for example increasing contact with beneficiaries. On the other hand, scholars argue that an organization cannot prescribe and manage meaningfulness, since meaningfulness is a personal experience and organizations cannot tell employees what they should find meaningful (Lips-Wiersma & Morris, 2009).

In an attempt to consolidate the two schools, Bailey et al. (2017) argue that meaningfulness happens in the context of an organization that can foster or hinder employees finding meaningfulness in their work. In this paper, we therefore attempt to scrutinize the issue of meaningfulness in microwork by adapting a relational job design perspective, while at the same time arguing that crowdworkers rationalize their actions in order to experience meaningfulness. In the next section, we will review relational job design and sources of meaningfulness.

Sources of Meaningfulness at Work

In general, job characteristics have long been recognized as salient factors for individuals to experience meaningfulness at work (Hackman & Oldham, 1976). Job simplification, such as microtasks, undermine individual professional and personal wellbeing (cf. Parker, Wall, & Cordery, 2001). In addition, isolated working conditions with little feedback may make it rather difficult for microworkers to be able to experience meaningfulness at work. If this holds true, such labor and job design is unlikely to be sustainable, at least assuming a stable workforce. Without experiencing meaningfulness, crowdworkers are likely to invest only minimal efforts in completing tasks and invest greater effort into finding alternative employment that is more fulfilling (c.f. Garg & Rastogi, 2006). Research suggests that meaningfulness can arise from four different sources: the task itself, roles people perform, interactions with others within the organization or other stakeholders, and

from the organization itself (Bailey et al., 2017). Below we will discuss the sources of meaningfulness in more detail.

Opportunity to Affect Lives of Others

Both the humanistic and the functionalist school of meaningfulness emphasize the importance of the impact one's work has on others (Bailey et al., 2017; Grant, 2007; 2011). Within the relational job design perspective, this is referred to as the opportunity to affect the lives of others and has four dimensions determining the potential impact of a job on others: magnitude, frequency, scope, and focus (Grant, 2007). Since crowdworkers do not have sufficient information about what degree or for what duration their job potentially affects others, the opportunity to affect others in microwork seems rather unlikely.

While the relational job design perspective enables us to quantify the impact one's work has on others, on the task level, the humanistic perspective rather emphasizes with whom workers interact to experience meaningfulness. The humanistic perspective emphasizes the importance of roles people preform and the values of an organization (Bailey et al., 2017). Workers are more likely to perceive their work as meaningful when they perform valued roles that resonate with their self-perception. Since crowdworkers are free to choose the tasks that they work on, it is possible that they choose tasks that resonate with their self-perception. However, it is unlikely that microworkers derive meaningfulness from the values of the platforms, since these platforms are known to provide cheap and replaceable labor.

Contact with Beneficiaries

Contact with beneficiaries is the extent to which a job provides employees with the opportunity to interact directly with beneficiaries. Contact with beneficiaries varies along five dimensions: frequency, physical proximity, depth, duration, and breadth of contact (Grant, 2007; 2008).

The relational architecture of microwork by itself prevents opportunities for workers to interact with beneficiaries. Hence, microwork cannot easily be analyzed in terms of frequency of the contact with beneficiaries, physical proximity to beneficiaries, and duration of the contact. Furthermore, the job itself may provide little or no feedback to the extent it affects others. First, microwork does not have a job description, which in itself could provide information on how and to what extent one can affect beneficiaries. Second, although workers get a task description of a particular project, the information it provides is limited to what the worker has to do. A worker does in particular most often does not have the opportunity for mutual exchange with beneficiaries.

Alternatively, we propose that the construction of meaningfulness is based on a rationalization process, in which behavior is explained after it has taken place. In the absence of social cues, the evaluation of one's work and the underlying rationalization process is based on personal motivation and self-perception (Bailey et al., 2017; Salancik & Pfeffer, 1978; Thomas & Griffin, 1983). This implies that although crowdworkers engaging in microwork do not have colleagues or leaders to provide social cues to evaluate their work, they should nevertheless experience their work as meaningful. Furthermore, although the work itself does not provide sufficient contact with beneficiaries, workers would nevertheless be able to conceive beneficiaries of their work and describe the perceived impact. Recent research suggests that meaningfulness and meaninglessness can emerge temporally and that all jobs can therefore be meaningful or meaningless (Bailey & Madden, 2017).

This supports the idea that meaningfulness can be actively constructed even when, or maybe especially when, work lacks objective relational or other structures that influence experienced meaningfulness.

3. Methods

We relied on an online sample of 110 U.S.-based crowdworkers from MTurk, conducted in August 2015. Next to the core research questions, the questionnaire that was employed in the survey asked participants questions regarding certain demographic characteristics, including gender, education, and tenure on MTurk. For purposes of comparison, the workers were recruited solely from the United States. Males were 60% of respondents and are slightly overrepresented in our sample. Around 56% of respondents were at the same time also part of the more traditional workforce, whereas 23% were self-employed, 15% out of traditional work, and 6% were part of the student or retired population. Sixty-one percent of those surveyed were single, the rest (39%) were involved in some form of relationship, and 15% of all respondents had dependent children in their households. The median tenure on the platform was between 1.5 and 2 years, with 23% of respondents being relative newcomers with less than half a hear of tenure and 17% of respondents having three or more years of tenure on MTurk. Survey participants earned an average of 670 USD per month on the platform, with individual values ranging from as low as 20 USD to as high as 3,000 USD.

3.2. Data Analysis

As part of our data collection, we asked participants the extent to which they experienced employment for microwork as meaningful, and to describe tasks that they experienced as particularly

meaningful. This resulted in a data set of overall two times 108 statements, accounting for missing data. We used deductive qualitative content analysis and followed the analytical steps as suggested by Mayring (2000) and Hsieh and Shannon (2005) to code the data and to identify perceived sources of meaningfulness in microwork. We used theoretical definitions as a point of departure for the coding, i.e. deductive category application. We started the analysis by defining theory based sources of meaningfulness. The goal of the coding was to: first, identify beneficiaries, and second, identify whether workers perceived impact on and contact with beneficiaries of their work. As a last step we quantified the results by counting the frequencies of each statement within a particular subcategory (Mayring, 2000). Of these, 31 statements belonged to two subcategories and were added to the frequencies of both subcategories.

In the first round of coding we identified the beneficiaries microworkers perceived benefitting from their work. Participants described the following perceived beneficiaries: The worker him/herself, the requester, an organization, researchers, universities, an unknown third party, society in general, and the greater good. We summarized these codes into two categories: the microworkers him/her-self, coded as "internal focus", and an external third party, coded as "external focus". The first level and second level codes define who the workers perceived as beneficiaries, as well as the direction of the potential impact (see Table 2).

Insert Table 2 about here

We then looked at the statements again to identify possible impact and contact with beneficiaries. We found that respondents described perceived impact on beneficiaries, but not contact. This is not

surprising considering that this type of work only happens online. In order to identify the perceived impact on the beneficiary, we coded how microworkers described how their work benefitted the beneficiary. The workers described three different ways their work benefitted a third party: furthering research, helping the requester, and helping the greater good. We defined "furthering research" as the workers' perceived contribution to research and/ or academia. In total 47 statements, 22%, described contributing to furthering research. "Helping the requester" was defined as the extent to which the workers perceived the requester or a specific organization as benefitting from the work. 38 statements, 18%, captured this subcategory. The last subcategory was defined as the extent to which the workers felt their work contributed to a greater cause, humanity and society in general. In total 48 statements, 22%, were in this subcategory.

We then summarized these subcategories into the following second order categories: social and moral. Statements describing perceived social service between the requester and the worker, i.e. helping the requester and furthering research, were categorized as "Social". In total 85 statements, 33%, belonged to this category. The remaining quotes, captured in the subcategory helping the greater good, were characterized by an obligation and impact on society and the world in general, and categorized as "Moral." We chose the term moral because participants described performing a service to society. In total, 48 statements, 19%, belonged to this category. The direction of the impact of "social" and "moral" was external.

We also found statements describing an internal impact. 29 statements, 13%, described the extent to which the respondent learned from working as a microworker and formed the subcategory "learning". Another subcategory, "feeling valued", in total 17 statements, 8%, described the extent to which the microworker felt valued. Statements defining the extent to which the microwowrker experienced microwork as enjoyable and/ or fun, were categorized as "fun", 4 statements, 2%. The
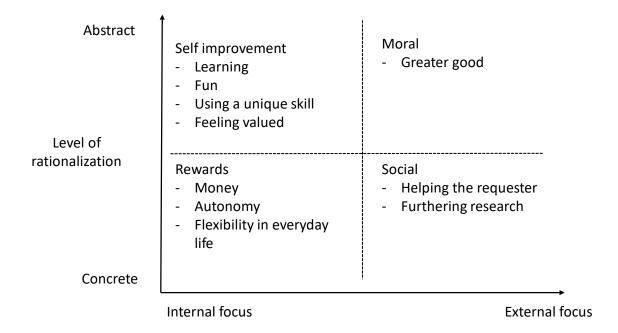
last subcategory was defined as the extent to which the worker felt that they could use unique knowledge or skills and were coded as "using a unique skill/ talent", 2 statements, 1%. These codes indicate putting one's skills to use, skill development, learning and self-esteem. Thus, as a second step, we summarized these codes into the second order category "Self-improvement", including 52 statements, 20%. We chose the term because learning is an indicator of skill development or acquisition and personal development. The term also captures the workers' perceptions that they personally benefitted from the work.

We categorized all responses defining monetary rewards and incentives as the subcategory "Money", 62 statements, 29%. Of these 62 statements, 37 statements mentioned other subcategories, such as autonomy, greater good or learning, as well. All responses describing the flexible work structures, working from home arrangements, opportunity to work anytime during the day, and/or a better work life balance, were categorized as "Autonomy", 9 statements, 4%. We summarized these two subcategories as the second order category "Rewards", with in total 71 statements, 27%.

We then summarized the above categories describing the perceived impact on the beneficiary. Statements describing tangible and quantifiable outcomes for either the worker him/herself or the beneficiary, e.g., the requester, organizations, researchers, universities, were coded as "Concrete." While statements describing intangible and idealized outcomes, e.g., self-improvement, society in general, and the greater good, were coded as "Abstract."

Three statements, 1%, were categorized as "No meaningfulnss", here the workers described not experiencing any meaningfulness in microwork and any tasks they performed.

Figure 1.

Beneficiaries and the level of concreteness or abstractness, and whether they were concrete or abstract

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Abstract
          ┌──────────────────────────┊──────────────────────────
          │ Self improvement         ┊ Moral
          │  -  Learning             ┊  -  Greater good
          │  -  Fun                  ┊
          │  -  Using a unique skill ┊
          │  -  Feeling valued       ┊
Level of  │                          ┊
rationalization ─────────────────────┊──────────────────────────
          │ Rewards                  ┊ Social
          │  -  Money                ┊  -  Helping the requester
          │  -  Autonomy             ┊  -  Furthering research
          │  -  Flexibility in everyday ┊
          │     life                 ┊
Concrete  │                          ┊
          └──────────────────────────────────────────────────────►
           Internal focus                          External focus
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4. Results

Our analysis yielded the following main findings: First, although objectively it is difficult for microworkers to know how, and to what extent, their work affects the work of others, respondents conceived of two types of beneficiaries: the crowdworker, and an external third party. Second, we found that crowdworkers described four dimensions of perceived impact on beneficiaries, which varied from concrete to abstract. A combination of the four dimensions, self-development, rewards, moral, and social gratifications (see Figure 1), determined whether crowdworkers experienced meaningfulness in microwork. In the following, we will first present our findings concerning the perceived impact on the crowdworker him or herself, i.e., internal focus, rewards, and self-improvement. Afterwards, the impact on a third party, i.e., external focus, social and moral, are discussed.

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4.1. Internal Focus

Rewards. The first perceived impact on the crowdworker we observed were "rewards". Participants described both monetary remuneration and autonomy as factors contributing to meaningfulness. Both factors are tangible, quantifiable, and a direct result of the structure and nature of microwork. We therefore categorized "rewards" as a concrete impact. We observed that monetary rewards contributed to experienced meaningfulness in cases where workers simultaneously experienced one or more of the other three sources: Self-developmental, moral, and social gratifications. Interestingly, we found that participants who would describe microwork in general as meaningless could still describe specific tasks that felt meaningful because of self-improvement, social, or moral reasons. In these instances, we observed a decoupling between general and specific levels of meaningfulness. This indicates that, in some circumstances, monetary rewards can contribute to experienced meaningfulness. For example, when asked whether microwork was meaningful, one respondent wrote:

"It's meaningful because it allows me to pay my bills and continue living my life. Without it I would be in a lot more financial trouble than I already am" (W1). When asked about a specific task he or she thought was meaningful, the same respondent answered: *"I had a task that was to identify irregularities in pictures of human eyes which I thought might help someone someday and it was really cool" (W1).*

Here, the combination of rewards together with moral reasons ultimately affected the perception of meaningfulness. Similarly, another participant described microwork as follows:

"The only way it is meaningful to me is because I am able to pay my bills with it. I rarely get any personal satisfaction for contributing to science or helping a company save money by using

crowdworkers like myself. I am not able to work outside the home, so this has been a blessing to me and my family" (W107). At the same time, the respondent said the following when asked about a specific meaningful task: "*I have the qualification to do World Vision International (tasks). A Christian organization has crowdworkers sort through pictures of young children and deem them acceptable or not acceptable. I do find this meaningful because I believe they are doing a great work, and I wish I could actually do more to help them (beyond MTurk tasks)" (W107).*

The following example describes a combination of rewards and self-improvement as a source of meaning:

"It is meaningful to me because if I am ever in a jam I can do something like MTurk to start digging myself out of the hole… I was able to do data information for someone and they were extremely happy with my work and gave me more to do. It helped pay my gas bill that month!" (W22).

Participants also experienced crowdwork as meaningful when they experienced a third party benefitting from their work next to the rewards. For example,

"It's meaningful because I help with research and other things. It's also meaningful to me because it helps me pay my bills" (W93).

This respondent experiences the work as meaningful both because of the monetary reward and because it affects a third party. Often, respondents indicated that money, together with the autonomy of the work, influenced experienced meaningfulness. For example,

"It gives me a chance to make money while working from home. It is not stressful and is easy going" (W53).

The quotes above demonstrate that rewards, in combination with one or more of the other three gratifications, may have a positive impact on experienced meaningfulness. However, monetary

rewards alone were insufficient for experiencing microwork and tasks as meaningful or were even perceived negatively. That is, when respondents could not describe self-improvement, or social and moral gratifications as additional factors, even though they acknowledged the financial benefits and/or necessity of their MTurk work, they experienced microwork as meaningless. For example, *"I find it to be simply a way to make money. I don't find any meaning in the endless surveys and other tasks I do" (W90).* This participant also did not experience any meaning when asked about examples of a task: *"I honestly can't think of a single one that meant anything to me. I remember tasks and requesters more for the fact that they paid a decent hourly wage than anything else" (W90).*

The following example indicates the same: *"It is only meaningful to me so far as it brings me money to live off of. This is my main source of income and it allows me to be my own boss" (W82).* When asked about a specific task the participant answered: *"Yesterday I did a task that simply had me answer if a topic was relevant to another and I made about thirty dollars an hour doing that. It was very meaningful in the respect that it made me money to live off of." (W82).*

These examples demonstrate that rewards alone are insufficient to experience work and tasks as meaningful, and supports our finding that a combination of monetary rewards together with self-improvement, social, moral and/or autonomy is necessary to experience microwork as meaningful.

Self-improvement. The second perceived impact on the crowdworker we observed leading to meaningfulness was "self-improvement," i.e., the extent to which participants described the use and development of one or more skills and/or a specific talent, feeling valued, and the tasks being entertaining and providing learning experiences. This dimension is abstract since it is not a tangible or quantifiable characteristic of microwork. Furthermore, due to the nature of microwork, one can

question whether microworkers would be able to learn anything. Hence, the perception of self-development is a subjective interpretation of the work and therefore we categorized it as abstract.

For example, in the following, the participant described how he or she experienced microwork: *"It is meaningful because it is challenging work. I like the work a lot"* (W10).

Another example is found in the following participant, who indicated that he or she learns from the work: *"[. . .] There's all sorts of different topics for those surveys, so sometimes it feels like you have to know a little bit about everything (specially for the ones dealing with current issues or knowledge). It has also helped me [to] learn a little, both [through] surveys and batch work, you learn something from each task you complete"* (W67).

These quotes indicate experiences of skill development and learning from microwork.

We observed similar indicators when we asked participants to describe specific tasks that felt meaningful to them. For example, the following participant described finding self-improvement in terms of using a unique skill for a task:

"I was asked to find a function that met certain criteria, and doing so provided a business need that the company had. The requester told me that nobody at the company had the ability to answer the question" (W8).

Overall, the above quotes describe the extent to which participants experienced the work as having had a positive impact on themselves.

4.2. External Focus

Crowdworkers described two dimensions of perceived impact on others contributing to experienced meaningfulness: "social" and "moral". In contrast to "rewards" and "self-improvement" that

had an internal focus, "social" and "moral" were characterized by an external focus. The perceived impact be described in terms of either concrete or abstract.

Due to the lack of direct contact with the platform, task provider, and/or other MTurkers involved in the same task, one would expect microworkers to be unlikely to attach beneficiaries to meaningfulness of their work. Nevertheless, respondents described how their work made an impact on beneficiaries. This may indicate that when crowdworkers performing microwork do not have evidence of beneficiaries directly affected by their work, they use their personal beliefs, goals, and/or experiences to conceive of a beneficiary in order to construct a desirable state, in this case meaningfulness of work. First, we will describe examples of social impact, i.e., having an external concrete focus, and second, moral impact, i.e., having an external abstract focus.

Social. Some participants described concrete examples of third parties or beneficiaries of their work. For example, the workers described a concrete beneficiary of his or her work:

"I think it is meaningful from an academic standpoint. There are many academic surveys on here that are used for research. Microworkers allow for fast and easy widespread access to targeted samples" (W42). Here the respondent has indicated that his or her work is important for the requester, which can be, for instance, a research institution or a researcher/research group, a commercial organization, etc., requesting the work.

The following quote describes a concrete beneficiary: *"I love to do short tasks, I love to help people with small things like this. I find it helpful to many people, I love to be part of research and help to improve things. I feel happy to help people who need help" (W58).*

The sentiment is echoed by others: *"When I do academic research surveys, I feel like my answers are helpful and meaningful. I hope my responses help the researchers reach whatever goal they are trying to achieve" (W74).* Here the respondents indicate their contribution to the particular research behind the survey task, thus a concrete beneficiary of their work.

We found the same pattern when we asked participants to describe an example of a meaningful task and why it was meaningful to them. Again, participants described beneficiaries in concrete terms. For example, *"I have done many tasks of this nature. My favorite is tasks where I have an actual impact on a product of some kind that is coming out" (W5).*

Another informant framed concrete beneficiaries as follows, *"I have recently been participating in a lot of political surveying which I feel is very important right now because that data is priceless. This data helps the candidates focus energy in the correct places." (W18).*

In a similar vein, one worker said *"I have worked on medical projects, helping medical students and helping to grade medical work. It made me feel like a part of that team" (W47).*

Here we see that the participants described the specific tasks that affected some concrete beneficiaries they identified.

Moral. Respondents also described the perceived impact in abstract terms, whereby their work was important for society in general and for the greater good. We defined this as "moral". Here we saw that the respondents did not identify a specific beneficiary, but rather described their work as affecting a greater good. Some respondents also described both a concrete and an abstract beneficiary, for example:

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"I feel my work as a crowdworker is meaningful, in the sense that I get to contribute to helpful academic research. This research ranges from many different sources and topics, but at the end of the day, regardless, I am contributing to society" (W40).

A fellow worker echoed this sentiment it as follows, *"It is meaningful to me because I know that much of the work I am doing is helping to contribute to scientific research which can help in education and help to gain new understanding about the human condition. Being part of something that can possibly give people new insights into human psychology is rewarding. It makes me feel like I am making a contribution that will last for a long time" (W64).*

Here the respondents stressed the importance of microwork for society in general and making a long-lasting social contribution on top of helping academic research. The above quotes show that workers may not have specific information about who could potentially be affected by their work or whether their work would be useful to the requester. However, they may nevertheless assume that the outcome of their work affects someone.

We found similar patterns when we asked participants to describe an example of a task that was especially meaningful to them. The following two examples demonstrate abstract beneficiaries affected by the tasks that the participants performed.

"Doing research for psychological studies I find to be particularly meaningful. I feel that providing to research and ultimately helping other people would be the best sort of work. I like to think that not only am I being compensated, but I am also giving back" (W36).

Likewise, an informant added that, *"I like doing any of the tasks or experiments the most. Doing unique projects for those at the schools looking for information makes me feel like I'm making a difference while earning a living" (W65).*

5. DISCUSSION

This study investigated how crowdworkers, in our case microworkers on Amazon Mechanical Turk, experience meaningfulness in their work. We observed two main findings: First, although while engaging in microwork, respondents might not have the necessary information to determine how and to what extent their work could impact others, they conceived two types of beneficiaries in order to experience meaningfulness: themselves or a third party. Second, we found four dimensions of perceived impact on beneficiaries contributing to meaningfulness: Self-improvement, rewards, moral, and social.

Our findings demonstrate the importance of aspects contributing to meaningfulness that are in line with both the functionalist and humanist perspective of work. In line with the humanist perspective, crowdworkers described how they personally benefitted from microwork, by either self-improvement or rewards. By describing how they personally benefit from the work, participants revealed their personal motivations for microworking, their self perceptions, and how the work itself fits into their lives by, for example, gaining autonomy.

At the same time, we also identified dimensions that described the impact on external others, despite the lack of objective structures enabling contact between crowdworkers and beneficiaries. This finding is in line with relational job design, in the sense that it describes the impact the work has on others. However, this is not due to the structure or design of the work, but is based on the crowdworker's search and conception of meaningfulness. Although we conceptualized sources of meaningfulness that are in line with the relational job design and the functionalist perspective, our results support the humanist tradition. This may indicate that instead of defining some jobs as more

or less meaningful based on an objective work or relational structure, meaningfulness maybe conceived as the result of personal motivations, attitudes, and experiences.

Furthermore, our findings may indicate that we might have to rethink the way in which the current definitions of organization and employee interaction should be applied in this setting, their underlying mechanisms, and their effects on organizational and employee outcomes. Social interactions between crowdworkers and organizations in a microwork context are rarely, if ever, based on observations or tangible cues as in a traditional work setting or organization. Thus, the level of information cues that crowdworkers could utilize to ascribe meaningfulness to their work is limited. In a traditional work setting, a worker processes necessary information yielded from observing others while performing a task. As such, feedback is usually based on evaluating oneself with respect to what others are doing (Freitas, Gollwitzer, & Trope, 2004). However, due to the isolated nature of microwork, our results indicate that instead of evaluating oneself with respect to others, crowdworkers evaluate their work with respect to their personal motivations (internal/ external focus) with either concrete or abstract rationalization.

Additionally, our study supports the idea that the ways in which job characteristics facilitate meaningfulness may differ according to personal and situational factors. Our findings suggest that microworkers perceive two different dimensions of how their work impacts others, the social and the moral dimension. This consolidates the functionalist and humanist perspective and the question of whether meaningfulness should or can be managed. Requesters may design jobs that provide meaningfulness. However, workers choose to what extent this design contributes to meaningfulness.

Our study raises questions concerning the responsibility of requesters in general and specifically of platform providers. If crowdworkers can perceive meaningfulness in microwork regardless of how work is designed and structured, the question arises of whether the employment side, both

requesters and platforms, can decline responsibility for providing a better work environment. At the same time, we have to ask whether platform organizations can provide work structures that foster meaningfulness without being perceived as insincere. Bailey et al. (2017) emphasize that management of meaningfulness has to be authentic in order to avoid being conceived as manipulative. Microwork in itself is often described as exploitive and has a reputation of disenfranchisement between worker and product (Bergvall-Kåreborn, & Howcroft, 2014; Ettlinger, 2016; Irani, 2015; Kingsley et al., 2015). Consequently, it may actually be impossible for Microworking platforms to create genuine meaningful work environments. This issue is not restricted to crowdwork or microwork, but also for gig workers in general.

Implications for Theory and Suggestions for Future Research

One interesting factor influencing the degree to which microworkers conceive beneficiaries could be self-interest and other-orientation. Self-interest is the pursuit of personal goals, whereas other-orientation is the concern for group goals and the collective wellbeing (De Dreu, 2006). The degree to which microworkers are focused on collective or personal goals could influence the degree to which they imagine both abstract and concrete beneficiaries. Other-orientation could trigger the need to imagine beneficiaries, while self-interested microworkers would rather focus on self-improvement or monetary rewards. This is interesting because up to now job design research has not yet focused on different types of other-beneficiaries.

Another interesting finding we observed is that microworkers are able to perceive meaningfulness of self-improvement in the microtasks they perform. Even with respect to tasks as simple as filling out surveys, some microworkers perceived themselves as contributing with the knowledge or experiences that they have. Some even experienced learning about a subject and about themselves.

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In most of the crowdworker studies, the majority of the focus has been placed on the simplified and insignificant nature of microwork. In other words, in theory, individuals may hardly thrive at crowdwork when tasks are divided into micro pieces that are mostly not challenging. The current finding thus sheds light on the importance of individual mastery goal orientation, which refers to the degree to which one seeks to learn all there is to know (Elliot & McGregor, 2001). Accordingly, our study serves as a preliminary stepping stone for future research looking into the personal and social determinants of individual mastery goal orientation for microworkers (c.f. Brewer et al., 2016; Chandler & Kapelner, 2013).

In addition, this particular developmental aspect of our findings also sheds light on microworkers' job crafting behaviors, which refers to individuals' attempts to alter the cognitive, task, and relational aspects of their current jobs to better fit themselves (Wrzesniewski & Dutton, 2001). The findings indicate that microworkers' attempt to craft their work roles, beyond just completing microtasks they could find on the platform, but also to take charge in, for instance, enriching their knowledge and/or their skills in certain areas, balancing work-life constraints, and giving through their work (c.f. Brawley & Pury, 2016; Gray et al., 2016). According to proactivity research, this crafting attempt may differentiate them from those who feel alienated in crowdworking environments.

Last but not least, our findings on rewards as a source of experienced meaningfulness are also intriguing. Traditionally, money is viewed as an extrinsic or transactional factor that is often associated with detrimental outcomes (e.g., Deci, Ryan, & Koestner, 1999). Our results, however, indicate that monetary rewards in combination with self-improvement, moral, and social contribute to experienced meaningfulness. This may indicate that money can trigger either positive or negative attitudinal responses, depending on individual microworkers' experiences in finding other

meaningfulness in their work. Furthermore, this finding may suggest that meaningfulness of work may be nurtured by the extent to which a particular job may fit into one's life situation or circumstances. Our finding that autonomy and money nurtures meaningfulness may indicate that crowdworkers engage in a type of "life crafting," where jobs lose or gain meaningfulness depending on one's life situation (Baily & Madden, 2015).

Limitations and Conclusions

Our study is not without limitations. First, due to the way our data was collected, we could not ask the participants to elaborate on why they thought someone benefitted from their work. Hence, we cannot exclude other influencing factors, such as past experiences with the requester or feedback from the requester. Future research should investigate the relationship between task significance and experienced meaningfulness in crowdwork and whether or not other underlying factors influence this relationship. For example, participants indicated that microwork made their lives easier because of the flexibility it provided.

An important factor to further explore in this relationship is the social situation of crowdworkers and the extent to which some life circumstances, for example, dependent persons within the household or the health of the participant or a spouse, influenced the degree to which participants experienced crowdwork as meaningful. Furthermore, because of the design of the study, the data does not reveal how experienced meaningfulness will change over time (Baily & Madden, 2015). It could be that experienced meaningfulness of crowdwork changes together with other aspects in the crowdworkers' lives. Future research should take into account other aspects of crowdworkers' lives in order to account for how experienced meaningfulness changes with time.

The current study provides practical implications for both crowdworkers and organizations using this type of labor. In particular, our results shed light onto how organizations may increase experienced meaningfulness for crowdworkers. Task requesters or platform providers can also help crowdworkers relate their tasks to self-improvement by specifying the skills crowdworkers need to perform the task or to develop during task performance.

The results of this study contribute to the current understanding of relational job design and how it may apply to crowdworkers. Upon first glance, it seems unlikely that crowdworkers can experience meaningfulness, but our results demonstrate that crowdworkers construct meaningfulness on two rationalization levels with an internal or external focus.

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Table 2.

Quotes and Codes

Quotes	Beneficiary	First order codes: perceived impact on the beneficiary	Second order codes: perceived impact on the beneficiary	Concrete/ Abstract impact
"I find it meaningful to the point where I have to do work to get money. After that it's not very personal." (W36)		Money, def.: *all monetary rewards and incentives.* n= 62 (24%)		
"It helps me make side money. I like the anonymity of it and I can do it whenever I want. It is a great thing and is meaningful because I can spend my time productively." (W37)		Autonomy/ Flexibility, def.: *flexible work structures, working from home arrangements, opportunity to work anytime during the day, and/or a better work life balance.* n= 9 (3%)	Rewards n= 71 (27%)	Concrete
"I find it meaningful because quite frankly, there are many opportunities to learn new things. I find the studies very interesting. I enjoy the reading aspect of it as well. I enjoy the cognitive tasks such as math tests and grammar tests." (W100)	**Internal Focus**	Learning, def.: t*he extent to which the respondent learned from working as a microworker.* n= 29 (11%)		
"They are mostly interesting at some point but some start to blend together. I did just write an ad copy for a company that specializes on registering companies in Belize that was pretty interesting. It was different so that made it very interesting." (W108)		Fun, def.: *extent to which the microwowrker experienced microwork as enjoyable and/ or fun.* n= 4 (2%)	Self-improvement n= 52 (20%)	Abstract
"When I do work that I know the general population can't do, I consider it meaningful. These things are usually math related, and one actually caused me to receive a job offer outside of MTurk, so I know my contribution was valued."(W28)		Using a (unique) skill, def.: *the extent to which the microworker felt that they could use unique knowledge or skills.* n= 2 (1%)		

"I love doing great work, for example I love writing for websites that I know will be appreciated by someone."(W99)		Feeling valued/ appreciated, def.: *the extent to which the microworker felt valued. n= 17 (7%)*	
"I love to do short tasks, I love to help people with small things like this. I find it helpful to many people, I love to be part of researches and help to improve things. I feel happy to help people who needs help." (W44)		Helping the requester, def.: *the extent to which the crowdworker perceived the requester or a specific organization as benefitting from the work.* n= 38 (15%)	Social n= 85 (33%)
"I enjoy doing tasks on MTurk for a few reasons, but it's mainly because I enjoy being a part of a bigger community. I take pride in my work and I find satisfaction in knowing that I am helping others with their academic and scientific research." (W3)	**External Focus**	Furthering research, def.: *crowdworkers perceived contribution to research and/ or academia.* n= 47 (18%)	Concrete
"I've completed a survey that had to do with depression that I felt was meaningful as it could help others."(W104)		Helping the greater good, def.: *the extent to which the crowdworker felt his/ her work contributed to a greater cause, humanity and society in general.* n= 48 (19%)	Moral n= 48 (19%) Abstract
"I do not feel the work is typically meaningful. The pay associated with the tasks is fairly low and as such creates a perception the work is of very low value."(W5)		No Meaningfulness, def.: *microworkers described not experiencing any meaningfulness in crowdwork and any tasks they performed.* n= 3 (1%)	