Mutuality and reciprocity: foregrounding relationships in Design and Social Innovation

Viola PETRELLA[a*], Joyce YEE[b], Rachel E CLARKE[c]

[a] Northumbria University, Newcastle upon Tyne, UK
[b] Northumbria University, Newcastle upon Tyne, UK
[c] Open Lab, Newcastle University, Newcastle upon Tyne, UK
*Corresponding author e-mail: viola.petrella@northumbria.ac.uk
doi: 10.21606/drs.2020.177

Abstract:
Although the importance of interpersonal relationships to processes of design and social innovation (D&SI) has been acknowledged, there is limited research in identifying what constitutes a relational approach in D&SI. In spite of their importance for relationship formation and maintenance, questions of respect, reciprocity, power and trust –and their intersection with various cultural practices– are often left untouched in design discourse. This paper reports early findings from interviews with design and social innovation practitioners in the Asia Pacific region, detailing the significance of putting relationships first, establishing mutuality and building reciprocity. The paper contributes insights into how practitioners perceive relationships as both meaningful and essential and suggest areas for further research to develop a more nuanced understanding of relationships in D&SI.

Keywords: design and social innovation, relationships, mutuality, reciprocity

1. Design and social innovation: a relational practice

Social innovation processes can be described as starting with a more or less serendipitous emergence of actors who share common or relatable issues; these actors go through the negotiation or definition of shared goals, elaborate ideas and solutions, and eventually implement and systematise them (Zapf, 1991; Mumford, 2002; Mulgan, 2007; Heiskala & Hämäläinen, 2007; Pol & Ville, 2008; Franz, Hochgerner, & Howaldt, 2012; Manzini, 2015; Akama & Yee, 2016). Often, the resulting innovation is not a material object, but a social interaction or practice (Choi & Majumdar, 2015). Therefore, social innovation creates new

relationships (Mulgan, 2007) but also stems from relationships: relationships can be considered both the precondition and the result of social innovation.

In this context, designers can "play a strong and relevant, even leading role" (Manzini & Rizzo, 2011, p. 202) triggering new collaborations, facilitating conversations, strategically connecting local initiatives and people. Recent literature suggests that the formation of relationships is a phenomenon that professional designers embed in the design process and is therefore within their agency and responsibility (Dindler & Iversen, 2014, p. 43); however, the processes through which relationships are built in design projects are not always made explicit in research accounts. A large part of the work aimed at forming, nurturing and consolidating relationships is done in the "backstage" of the design process (Dindler & Iversen, 2014) in the form of one-to-one conversations, asynchronous work such as email or text message exchange, and even personal reflection; these activities are usually considered a by-product of design compared to "front stage" activities such as workshops or presentations, but they are a fundamental element of relationship formation in a design context.

Current explanations of how people come together to initiate and sustain social innovation processes – particularly the definition of "collaborative organisations" offered by Manzini (2015, p. 83), with its emphasis on independence and free will to join and leave the process – resonate with Western ways of thinking but do not offer an account of the value of intimate, interdependent relationships in design and social innovation (Akama & Yee, 2016). The literature foregrounding relationality in design and social innovation (D&SI) often comes from a non-Western or Global South context. For example, Akama and Yee (2016) invoke the framework proposed by Kasulis (2002) to explain traditional design's tendency to present itself as objective and universally adaptable. In his book *Intimacy or Integrity,* Kasulis presents two fundamentally different ways of relating: although a society is rarely "culturally monolithic", it may have a mainstream system of thought that values intimacy over integrity, or vice versa (Kasulis 2002, p.17). The integrity orientation poses an emphasis on public objectivity, independence and external relations, while the intimacy orientation tends to favour belong-togetherness, interdependence and internal relations. In an integrity paradigm, knowledge (including design knowledge) is viewed as independent from context, universal, and transferrable. The knower is assumed as separate from the design knowledge, with models and tools as a bridge between them. An intimacy paradigm, on the other hand, perceives knowledge as embodied, inseparable from its context, and only transferrable through relationships and situated practice. However, it is unclear what these terms actually mean in the lived experience of people working in D&SI projects, and what their significance would be for designers in the development of a relational approach to D&SI.

This paper aims to elaborate on aspects of relationships as discussed by design and social innovation practitioners in Asia Pacific. It describes the preliminary findings of an exploratory qualitative study, conducted as part of a PhD study which aims to explore what role relationships and relationality have within D&SI. The paper reports on early thematic

analysis of interviews with 12 practitioners who detail the significance of putting relationships first, establishing mutuality and building reciprocity. These themes describe important features of professional design practice focused on social impact and change that are rarely discussed in D&SI literature. The paper contributes further insights into how design practitioners perceive relationships as both meaningful and essential to the work of design and social innovation and suggests how future work can build on these perspectives.

2. Relationships, design and social innovation

2.1 Defining relationships

Since current literature directly relevant to relationships in design and social innovation is scarce, the study draws from research in other fields such as Relationship Science (Berscheid, 1999), Leader-Member Exchange (LMX; Graen & Uhl-Bien, 1995), Employee-Organisation Relationship (EOR; Shore et al., 2004), and research on social networks and social capital (Claridge, 2018; Granovetter, 1973) to identify the different factors at play in building and maintaining work relationships. The research focuses on dyadic relationships (those happening between two individuals) which are considered the "key element or building block of groups" and "represent key components of social networks" (Liden, Anand, & Vidyarthi, 2016, p. 140).

Ferris et al. (2009) offer a review of the literature and propose an integrative model of work relationships. The authors describe initial interactions as characterised by instrumentality. The quality of the relationship depends on the expectation that each participant in the dyad holds and might be influenced by each participant's interest in establishing or maintaining an important role within the organisation. Trust, respect, affect and support play an important part in forming a judgement about the other participant (Pratt & Dirks, 2007; Graen & Uhl Bien, 1995 as cited in Ferris et al., 2009). The relationship can remain 'low-quality' and instrumental, or it can evolve so that participants start to see it not as a means to an end, but as an end in itself (Cropanzano & Mitchell, 2005 as cited in Ferris et al., 2009). Flexibility is required to handle incompatibility and disagreement, with each participant needing to show the ability to compromise and negotiate (Ferris et al., 2009). As the reciprocal commitment grows, the need to maintain a shared relational identity increases, with loyalty, commitment and accountability playing a key role (Sluss & Ashforth, 2007). Other elements characterising relationships are the passing of time; physical and psychological distance; reputation; and dissolution or redefinition of the relationship.

2.2 Cultural plurality in relational D&SI

Processes of design and social innovation are centred upon creating dialogue and surfacing the perspectives of a heterogenous group of people with varying relationships, with the goal of enhancing its capacity to act. However, some scholars doubt that traditional design education and training stimulate the designers' awareness of questions such as power, decision making, responsibility and reciprocity, which are central to relationship formation

and maintenance within and outside of design processes (Akama, Hagen, & Whaanga-Schollum, 2019). Exploring relational approaches to D&SI requires welcoming the idea that people – design professionals, laymen, communities – engage in design activity in a plurality of ways that cannot be disentangled from their social, cultural, economic and physical context. The plurality of ways of understanding and doing design is increasingly discussed in academia, as demonstrated by the rising numbers of books, papers and conferences on the matter. For example, the Design Research Society (DRS) has introduced a Pluriversal Design Special Interest Group which aspires to a "'re-orientation' of design to incorporate multiple perspectives and views and a focus on multiple ways of doing and understanding design" (DRS, n.d.); the discourse around design "decolonization" is surfacing often marginalised design practices from non-Western cultures (see for example the work by the Decolonising Design Group, 2016; Tunstall, 2013; Akama and Yee, 2016; some academics and practitioners are problematizing aspects of design that are normally taken for granted and foregrounding respect, reciprocity and relationality over, for example, replicability (Akama, Hagen & Whaanga-Schollum, 2019), while others urge us to embrace plurality as "grounded, situated, self-reflexive and ever evolving" (Light, 2019, p. 4).

3. Methodology

3.1 A note on positionality

We acknowledge that reflexivity is a key aspect of relational D&SI. As co-authors we identify as design practitioners and researchers with differing cultural experiences to bring to the inquiry. All three authors have been trained in fairly traditional Anglo-European art and design education and we acknowledge our educational and professional background will therefore influence our approach and critical lens we bring to the research. Therefore, we feel it is important for us to a) to provide a brief account of our background and our practices and b) to reflect on how we critically engage with accounts that come from non-western cultures. The first author, Viola has practiced predominately in Italy and in the UK, but spent 6 months working with an Indonesia-based organisation on a series of public space projects funded by the United Nations. It was this project that initially raised questions on the role of relationships in D&SI practice. Her unfamiliarity of the Indonesian language encouraged her instead to observe and notice how relationships between the project team and the different stakeholders (from villagers to high-ranking government officials) were initiated and nurtured throughout and beyond the project. These connections seemed to enable projects to happen, they sustained them, were cultivated long before the start of the projects and long after their completion. Similarly, the second and third authors also have extensive experience of investigating, observing and being part of cross-cultural design projects where relationships are considered to be vital. The second author, Joyce co-founded the Designing Social Innovation in Asia-Pacific (DESIAP) in response to a growing trend in the appropriation of 'universal' Anglo-centric design methods in different cultural contexts which may inadvertently dislodge indigenous practices and knowledge. Her

attunement to cultural nuances and appropriation has been shaped by her background growing up in post-independence Malaysia, as an ethnic Chinese in a Muslim dominated country, and as an Asian woman living and working in a dominant group in the UK. The third author, Rachel has a background in participatory arts in refugee contexts predominantly in the UK. More recently she has been working with Arabic communities in Palestine and has established a network with international researchers working across the middle east and north Africa, exploring decolonizing participatory design practices in the context of indigenous place-based knowledges.

Our professional experiences attests to designing as a deeply relational practice; however, the variety of frameworks, toolkits and models available to designers (e.g. Frogdesign, 2012; IDEO, 2015) made little to no mention of the complexity of relationships and of their intersections with D&SI. Therefore, we started to reflect on and explore the role of relationships through Viola's own practice, which has become a core focus of her PhD with support from Joyce and Rachel. Part of the reflexive practice process also includes drawing on experiences and examples from other D&SI practitioners working in different cultural contexts in order to enrich understandings of D&SI, while also using the variety of perspectives and cultural nuances to surface attitudes and values that may be assumed as universal in design discourse. The following section describes how these different experiences and perspectives were elicited and analysed.

3.2 Semi-structured interviews and analysis

The findings presented in this paper are initial results based on data collected during semi-structured interviews with 12 practitioners in 10 organisations from different countries in the Asia Pacific region. Participants were interviewed through a VOIP (voice over IP) call through Skype or Zoom, with each conversation lasting between 45 minutes and 1 hour and 30 minutes depending on the availability of the interviewee and on the time spent in introductions and informal chat. The conversations were loosely based on an interview guide that Viola shared with participants prior to the interview; after transcription, a Thematic Analysis approach was adopted to analyse the data and draw initial insights. At this stage of the research, we were focused on capturing practitioners' view on relationality in their practice that spoke to their experience. We did not assume that they had the right or permission to speak on behalf of the indigenous perspectives of the community that they work with.

3.3 Sampling strategy

The sampling of D&SI practitioners began with the construction of a database of potential contacts who could offer a non-Western perspective on design and social innovation. The selection was based on the following criteria:

- Expertise of the interviewee in the social innovation field;
- Perceived interest in the questions guiding this research;

- Likelihood that the interviewee would have an approach to their work that emphasises the importance of relationships;
- A position in the organisation to initiate and build relationships;
- Previous contact, or possibility of being introduced.

Through a partnership with the DESIAP network, we were able to access a database of contacts to whom we could be introduced and who could offer a non-Western perspective on design and social innovation. Most of the contacts were collected from this database, with the exception of two people which was recruited from Viola's professional contacts. Participants work in different countries: Aotearoa New Zealand, Cambodia, Indonesia, Japan, Malaysia, Myanmar, Philippines, and Thailand. Below is the list of participants with their related role and context of work; their names were replaced with pseudonyms to preserve anonymity.

Table 1   List of participants.

Name (pseudonym)	Professional role	Scope of organisation / project / activity
Anne	Director of Philanthropy	Grant-making foundation
Thomas	Executive creative director	Design and branding studio working with social innovation initiatives
Gloria	Executive director	Social innovation project within an academic and research institution
Victor	Co-founder	Social enterprise incubator (1)
Carlo	Co-founder	Social enterprise incubator (2)
Rose	Venture support director	Social enterprise incubator (2)
Lamai	Co-founder	Social innovation design consultancy
Lucy	Co-design lead	Government-led project
Leon	Co-founder	Organisational design consultancy working with social innovation initiatives
Alba	Co-founder	Organisational design consultancy working with social innovation initiatives
Keiko	Co-founder and managing director	Company collaborating with government to create social innovation ecosystems

Somchai	University lecturer	Working on social innovation projects with students

3.4 Thematic Analysis

Since the goal of the research is to develop a deeper understanding of relational dynamics through rich descriptions and the exposure of taken-for-granted assumptions, a phenomenological approach to research (Spencer, Pryce, & Walsh, 2014) paired with Thematic Analysis seemed fitting. The "reflexive TA approach" proposed by Braun and Clarke (e.g. Braun & Clarke, 2006; Braun, Clarke, Hayfield, & Terry, 2019) was adopted. It conceptualises TA as a wholly qualitative approach that emphasises situated, contextual meaning, with the researcher having an active role in the production of meaning and knowledge. Initially, inductive coding was performed manually; after turning to the literature to develop and refine the codes and the main concepts, a well-known qualitative data analysis software, Nvivo was used to sort the codes and explore particular themes.

4. Discussion: relationships come first

All participants identified relationships as central to their work. Three participants explicitly mentioned having a specific relationship-building mandate as part of their formal role in their organisation, while others described building relationships as a priority in their work. The approach to relationships varied, with some participants acknowledging an underlying goal to building relationships, such as opening up opportunities for collaboration or acquiring support and resources. Others foregrounded relationships and framed projects as their consequence: "It's like relationships come first. […] the outcome of what you do when you are together, that comes later" (Alba). In all cases, participants related a positive perception of relationships built before and during the project to an overall positive perception of the project activities and outcomes.

Different features of relationships were identified in the interviews, along with several strategies to build and maintain relationships, establish and expand networks of relationships, deal with challenges and overcome obstacles. In this brief space, two themes are identified as fundamental to describing positive, vibrant work relationships in the context of D&SI: establishing mutuality and building reciprocity.

4.1 Establishing mutuality

We define mutuality here as the extent of agreement between the dyadic parties about the nature of their relationship and its specific terms (Dabos & Rousseau, 2004). It implies a 'respective' relationship in which certain actions are performed by two people with respect to one another (Graumann, 1995). Mutuality was identified as an important concept that D&SI practitioners consistently described in their work; it is underpinned and enacted by and through core features of trust, role-taking and learning.

Mutual trust

Supporting the findings of previous research (Bratteteig, Bødker, Dittrich, Mogensen, & Simonsen, 2012; Clarke et al., 2019; Pirinen, 2016; Warwick, 2017), mutual trust among members of the same organisation and among project partners at all levels, from government to community, is considered valuable in collaborative design practice. In the participants' words, trust is "the core of everything we do" (Anne) and "[t]here should be a certain amount of trust before we even start the work" (Thomas). While trust building as described by participants relies on reciprocity and is therefore discussed in the next section, participants stressed the mutuality of trust in that they felt it "works both ways" (Anne): it has to be mutual to enable the construction of equal partnerships and allow transparency in communication and the open sharing of issues and problems. These elements generate a positive feedback loop that reinforces mutual trust building over time.

Role-taking and mutual expectations

References to mutuality also highlighted anticipated obligations associated with role-taking and expectations of what each party would bring to the relationship. Showing consistency in fulfilling obligations and conforming to the other party's expectations was reported to increase trust: "there has to be, to a certain extent, predictability, which means you don't change all the time" (Thomas). However, practitioners discussed the need to balance and integrate different roles – and therefore different obligations and expectations – including being a trusted advisor, a facilitator of conversations and co-design activities, a critical friend and "thought partner" (Anne), a member of the community or an outsider, a connector with other people, with resources or knowledge, and a host of events. These informal roles were described as overlapping with more consistent, formal ones such as funder, design consultant, professor, trainer, or representative of local government.

Anne is a director of philanthropy, but her roles go well beyond distributing funds to different projects:

> "The money of course is vital, but it's much more about we then becoming a connector and actually often just a friend to have a glass of wine with and have someone to say 'Oh my gosh, I'm really struggling with this.'" (Anne)

While deep, trusting relationships can generate and sustain projects, failing to balance different roles can generate contrasting expectations or even conflict:

> "They invite me to join [a community event]. I cannot refuse that I am from uni[versity], I'm pretty well known in [country]. But I try to be my own individual representing my own [self]. I'm not trying to be like, "Okay, I'm the lecturer and I'm knowledgeable about this and I want these people to do this and that." (Somchai)

> "[A]t the beginning of the project, even though I try so hard to be friendly with everyone, to be close, connect to the one I think would be a good key informant for me, I need to be aware that maybe I need to keep some distance, because I come from outside anyway. If there are conflicts in the community and it seems that I am pro this guy, maybe I will not get any help from them. So that's why it's so hard for me to balance my roles in the communities." (Somchai)

Roles taken are also influenced by power dynamics where the ability of one party to have power over the other and exert some control over its behaviour, including imposing obligations, occurs (Fasli, 2006). Participants have reported experiencing power imbalances, particularly in teacher-learner or funder-grantee relationships or in interactions with members of disenfranchised communities. Trying to establish mutual relationships in D&SI can therefore challenge this dynamic. While assuming 'equal' agency and providing tools for participation without questioning the quality and nature of engagement can reproduce imbalanced power structures (Pierri, 2016), deconstructing power dynamics has its challenges, particularly in contexts and cultures where social hierarchy is firmly rooted in the society and open disagreement is undesirable (see for example Tjahja & Yee, 2017). One participant from Thailand commented:

> *"[I]n Thailand, because it's very relationships based, when someone disagrees, they wouldn't say it in the meeting [...] you need to respect the elders. You can't say, you know, you can't really express how you feel."*

Another participant, who is originally European and has worked in D&SI in Myanmar and Indonesia, offered a counterview:

> *"[P]eople sometimes see you as this this person who knows some stuff and then they kind of more or less automatically trust you [...] people just listen to you and don't question what you tell them [...] This changes the dynamics of some relationships."*

Consistently with Sluss & Ashworth (2007), the ways roles occupants enact their respective roles in regard to each other (i.e. 'relational identity') are fluid: they integrate personal qualities and role-based characteristics (including authority), and they are socially constructed through interaction, observation, negotiation, and feedback. A mutual understanding of respective roles facilitates the construction of a positive work relationship, but when the construction of a shared relational identity questions the role- and person-based identities that constitute it (for example by challenging one party's authority and the other party's submission to it), parties might resist the change and it might take longer for the relationship to transcend the bounds of the roles.

Mutual learning

Enabling mutual learning is one way to encourage the levelling of hierarchy and work towards achieving and maintaining equal partnerships. Two participants who have experience of working alongside Indigenous communities in Aotearoa New Zealand offer a compelling example of how equal partnerships can be created and maintained by following Indigenous cultural protocols that emphasise mutual respect and mutual learning. The process begins by finding common ground, building trust and exploring mutual consent to respectful collaboration:

> *"The first thing you have to do with in Maori culture is whakawhanaungatanga, you have to get to know who's in the room [...] you don't start the work until you've established who you are, where you come from and what your shared values are around".*

> *"A wānanga might look like a workshop, but it will be on marae, so it would be on a cultural site and you will follow in practice cultural protocols. So you have to be welcomed onto the site".*

> *"[It was] a whole ceremony, which took hours, of being invited, like enthusiastically and genuinely invited onto the land and given permission, given a sense of 'We claim authority on this land and we have some values and some ways of being that are crucial. And if you're willing to adhere to those ways of being, then you can consider yourself as entitled as any other local'".*

After establishing mutual consent and aligning values, the design process continues with a pattern of mutual learning. The Maori term "ako" encapsulates the mutuality of the learning process and the levelling of power: "[T]he design process from Maori lens is very much about ako. Ako means to teach and to learn at the same time. So it's both".

The concept of mutual learning as a way to equalise power relationships is often discussed as a motivation and an outcome of participatory design heritage (Kensing & Greenbaum, 2012, p. 21). In their work on Participatory Design and infrastructuring, Bødker et al. (2017) build on the work of Engeström (2007) to describe "knotworks", fluid assemblies of heterogenous participants working in "symbiotic agreement" through mutually beneficial or explorative partnerships. Knotworks, together with more stable "networks" of relationships, form the infrastructure of a project; relational agency, which is exerted by all stakeholders and dispersed among people and organisations, involves engaging with this infrastructure at various levels of authority, recognizing and respecting the resources and understandings that other people carry.

Indigenous perspectives on PD highlight the importance of "preserv[ing] difference, opposition and division in the knowledge that we all inhabit a living mutualism"(Sheehan, 2011, p. 69). Indigenous knowledge applied to design foregrounds deep situational awareness, respect and care; through an openness to mutual learning, collective well-being can be pursued even from a plurality of positions. As one participant described it, it is about

> *"focusing on the quality of the present moment and the lived experience of the subject of individuals that are in the space and like, how are they doing? What needs do they have? Can I adjust my posture in a way that meets their needs more effectively?"*

Far from the heteronomy of universal, standardised design practice, Indigenous perspectives allow for autonomy (Escobar, 2017; Sheehan, 2011) grounded in relational cultural practices and enabling communities to change the norms from within. The difficulties of Western conceptualisations of PD to fully adopt a relational paradigm (exemplified by the tendency to consider relationality as a skill designers bring to the project, rather than as a way of being) are, as notes one participant, "completely resolved within an Indigenous worldview, because those things [are] already settled". Another participant explicitly noted that this approach is key to studies focused on relationship in D&SI: "you've got a research question, and I think the answer is Indigenous approaches to design".

4.2 Building reciprocity

The term 'reciprocity' is used here to indicate what Sahlins and Graeber (1965, p. 147) call 'generalised reciprocity': a type of transaction in which one party commits an act of generosity by offering or sharing something (resources, help, hospitality) without expecting a direct, material return. While reciprocity does generate sense of counter-obligation, this is a 'diffuse' obligation to reciprocate when the donor will need it, and if the recipient will be able to reciprocate. The nature and amount of the reciprocation can also be very different from what was initially given.

As mentioned, mutual trust is an essential element to the construction of positive work relationships in D&SI. However, "it doesn't happen overnight" (Anne): time, care and patience are required to build the base for a solid relationship. Participants described different strategies they put in place to gradually build trusting relationships; many of them involved reciprocity or, as Lucy described it, "putting generosity into the system": contributions in the form of economic resources, knowledge, connections, time, emotional availability are made without expecting immediate reciprocation but in the hope that, one day, efforts will be reciprocated. Thomas eloquently describes this process:

> *"[I]f you choose to be the one to trust, to take on the lead to trust certain people, they will trust you in return. I think there's a beauty of humanity that if you take the first step, I'm sure the other side, they will take some steps, maybe slower, but they will take the steps eventually. […] I always see the return. It may not come directly from the party who has benefited from your program, but it will come back, in some other time."*

Carlo describes this process as being about "creating courage, […] the courage of really saying, 'Ok, look, we can do something together', right? So now I trust you, and I find the courage of putting it out there". This might require "model[ling]the same behaviours we look for in partners" (Anne) such as showing vulnerability, openly admitting mistakes, or being patient. From this initial demonstration of trust, the relationship is maintained by keeping in touch through text message, meeting up for coffee, offering continuous emotional support, being invited to and attending community events even outside of normal work days, and generally building a personal, more intimate relationship than what would happen in a work setting.

Often, reciprocity involves brokering a relationship with a third person, or welcoming the other party within one's social network. Sharing a contact can be beneficial to a relationship: triads have been studied for decades, demonstrating that dyadic relationships are strengthened if both parties are linked to the same third person (Simmel, 1908/1950; Heider, 1958; Krackhardt & Kilduff, 2002), while more recent research uncovered the importance of social networks on dyadic relationships (Goodwin, Bowler, & Whittington, 2009; Sparrowe & Liden, 2005). Though the relationship is strengthened, Carlo explains that "in the majority of cases, [building relationships] would not be a direct benefit for our company, but it would be, could be, a potential benefit for the entrepreneurs we are supporting, so for the real social innovators." In Gloria's organisation, project partners are introduced through referrals and, for a project to be funded, its proponents must have

strong pre-existing connections with the target beneficiaries and must be willing to grant open access to previous knowledge and work results.

Significant amounts of time and money can be put into the development of a work relationship: Anne's foundation distributes early stage grants to, "sort of crudely, [buy] time to build a stronger relationship and get to know each other better as people and organisations"; Lucy comments that, in situations where local government has repeatedly let down communities, "we don't expect there to be a readiness [for innovation] when there's been so much fracture. So we might have to sit in a pre-readiness phase with those communities for a couple of years before […] there is enough trust or enough stability in the chaos that you can start to work forward".

All this generosity is not selfless: many participants mentioned the need to understand that people have different motivations to enter a relationship and openly shared having a self-interest in relationships. All the reciprocity-based strategies, however, expose them to risks such as potential rejection, loss of face, loss of time or money. Sometimes the risk is of being hurt: "if there was a betrayal of that trust […] it would be a viscerally personal issue for the team" (Anne). One participant expressed frustration at the "years of maintenance" of relationships that do not lead to any "concrete output or outcome", while others mentioned the risk that the generosity would be taken advantage of, rather than recognised or reciprocated. Finally, some participants mentioned becoming "entangled" in relationships, having to maintain them beyond the end of a project or being held accountable in the long term for the behaviour of people they have introduced.

5. Conclusions

The participants stressed the importance of relationships to their work in D&SI and understood themselves as active agents in the creation and maintenance of relational bonds. The practices described by D&SI practitioners are deeply relational that involves collective sensemaking, dialogue, storytelling and knowledge-sharing and is embedded within various cultural practices (Akama, 2017; Akama & Yee, 2016; Escobar, 2017; Salazar & Borrero, 2017). Participants have described openness to others, being present, continuous alignment and attunement to the other's needs and values, a non-transactional approach to reciprocity, and a focus on consent and consensus as elements to build a successful relationship. This suggests further research is needed to acknowledge the plurality of experiences of working in D&SI; and the use of suitable frameworks to notice and reveal the various dimensions relating to establishing mutuality and building reciprocity. For example, here it might be useful to refer to use Kasulis's (2002) framework to further observe mutuality and reciprocity through the lens of cultural practices foregrounding intimacy or integrity.

Our research has revealed that there is limited recognition of indigenous and non-western 'design' practice within accounts of D&SI, and yet this could be of value to invigorating relational understandings of design. It is therefore important to consider these accounts in a

critically reflexive and nuanced understanding of positions, accounts and ways of being and operating in D&SI (Akama, Hagen & Whaanga, 2019). Our understanding of D&SI, and what we are able to see and hear however remains influenced by our histories and experiences, despite trying to be respectful of other ways of being in design that does not attempt to appropriate or take on or speak for others, particularly those who have had their cultures and practices denied in violent and oppressive ways. Our understanding and interpretation is therefore always going to be very different from those who have grown up with indigenous ways of being. Therefore, as researchers, we should be mindful of what it means to try and take on these ideas from indigenous cultures as transferrable to different contexts.

Insights from the participants experiences is being used to inform the next stage of the research. Viola will be seeking a deeper engagement with the practitioners and the communities they work through planned field work in order to observe first-hand how the guiding principles of mutuality and reciprocity are being enacted in order to further sensitise her practice in Italy to these elements.

6. References

Akama, Y. (2017). Kokoro of Design: Embracing Heterogeneity in Design Research. *Design and Culture*, *9*(1), 79–85. https://doi.org/10.1080/17547075.2017.1280266

Akama, Y., Hagen, P., & Whaanga-Schollum, D. (2019). Problematising Replicable Design to Practice Respectful, Reciprocal and Relational Co-designing. *Design and Culture*, *1*(0), 1–23. https://doi.org/10.1080/17547075.2019.1571306

Akama, Y., & Yee, J. (2016). Seeking stronger plurality: Intimacy and integrity in designing for social innovation. *Cumulus Hong Kong: Open Design for E-Very-Thing*, (November), 173–180.

Berscheid, E. (1999). The Greening of Relationship Science. *The American Psychologist*, *54*(4), 4–5.

Bødker, S., Dindler, C., & Iversen, O. S. (2017). Tying Knots: Participatory Infrastructuring at Work. *Computer Supported Cooperative Work: CSCW: An International Journal*, *26*(1–2), 245–273. https://doi.org/10.1007/s10606-017-9268-y

Bratteteig, T., Bødker, K., Dittrich, Y., Mogensen, P. H., & Simonsen, J. (2012). Methods: Organizing principles and general guidelines for participatory design projects. In *Routledge international handbook of participatory design* (pp. 117–144). Routledge.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101.

Braun, V., Clarke, V., Hayfield, N., & Terry, G. (2019). Thematic Analysis. In P. Liamputtong (Ed.), *Handbook of Research Methods in Health Social Sciences*. Singapore: Springer.

Choi, N., & Majumdar, S. (2015). Technology and Innovation for Social Change. https://doi.org/10.1007/978-81-322-2071-8

Claridge, T. (2018). Functions of social capital – bonding, bridging, linking. *Social Capital Research*, (January), 1–7.

Clarke, R. E., Briggs, J., Armstrong, A., MacDonald, A., Vines, J., Flynn, E., & Salt, K. (2019). Socio-materiality of trust: co-design with a resource limited community organisation. *CoDesign*, *00*(00), 1–20. https://doi.org/10.1080/15710882.2019.1631349

Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal*

of Management, *31*(6), 874–900.

Dabos, G. E., & Rousseau, D. M. (2004). Mutuality and Reciprocity in the Psychological Contracts of Employees and Employers. *Journal of Applied Psychology*, *89*(1), 52–72. https://doi.org/10.1037/0021-9010.89.1.52

"Decolonising Design." (2016). Editorial Statement. Retrieved December 5, 2018, from http://www.decolonisingdesign.com/statements/2016/editorial/

Dindler, C., & Iversen, O. S. (2014). Relational expertise in participatory design. *Proceedings of the 13th Participatory Design Conference on Research Papers - PDC '14*, 41–50. https://doi.org/10.1145/2661435.2661452

DRS. (n.d.). Pluriversal Design SIG. Retrieved December 6, 2019, from https://www.designresearchsociety.org/cpages/sig-pluriversal-design

Engeström, Y. (2007). From communities of practice to mycorrhizae. In *Communities of Practice*. https://doi.org/10.4324/noe0415364737.ch4

Escobar, A. (2017). *Designs for the Pluriverse*. Durham: Duke University Press.

Fasli, M. (2006). On the relationship between roles and power: Preliminary report. *Proceedings of the ACM Symposium on Applied Computing*, *1*, 313–318. https://doi.org/10.1145/1141277.1141351

Ferris, G. R., Liden, R. C., Munyon, T. P., Summers, J. K., Basik, K. J., & Buckley, M. R. (2009). Relationships at work: Toward a multidimensional conceptualization of dyadic work relationships. *Journal of Management*, *35*(6), 1379–1403. https://doi.org/10.1177/0149206309344741

Franz, H.-W., Hochgerner, J., & Howaldt, J. (2012). *Challenge Social Innovation - Potentials for Business, Social Entrepreneurship, Welfare and Civil Society*. (H.-W. Franz, J. Hochgerner, & J. Howaldt, Eds.). Berlin: Springer. https://doi.org/10.1007/978-3-642-32879-4

Frogdesign. (2012). Collective Action Toolkit. Retrieved July 10, 2019, from https://www.frogdesign.com/work/frog-collective-action-toolkit

Goodwin, V. L., Bowler, W. M., & Whittington, J. L. (2009). A social network perspective on LMX relationships: Accounting for the instrumental value of leader and follower networks. *Journal of Management*. https://doi.org/10.1177/0149206308321555

Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based Approach To Leadership: Development Of Leader-member Exchange (Lmx) Theory Of Leadership Over 25 Years: Applying A Multi-level Multi-domain Perspective. *Leadership Quarterly*, *6*(2), 219–247. https://doi.org/10.1115/GT2016-57374

Granovetter, M. (1973). The Strength of Weak Ties. *American Journal of Sociology*, *78*(6), 1313–1360.

Graumann, C. F. (1995). Commonality, mutuality, reciprocity: A conceptual introduction. In I. Markova, C. F. Graumann, & K. Foppa (Eds.), *Mutualities in Dialogue* (pp. 1–24).

Heider, F. (1958). *The psychology of interpersonal relations*. New York, USA: Wiley.

Heiskala, R., & Hämäläinen, T. J. (2007). *Social innovations, institutional change, and economic performance: Making sense of structural adjustment processes in industrial sectors, regions, and societies*. Cheltenham: Edward Elgar.

IDEO.org. (2015). The Field Guide to Human-Centred Design. Retrieved December 5, 2018, from http://bestgraz.org/wp-content/uploads/2015/09/Field-Guide-to-Human-Centered-Design_IDEOorg.pdf

Kasulis, T. P. (2002). *Intimacy or Integrity - philosophy and cultural difference*. Honolulu: University of Hawaii Press.

Kensing, F., & Greenbaum, J. (2012). Heritage: Having a say. In *Routledge International Handbook of*

Participatory Design. https://doi.org/10.4324/9780203108543

Krackhardt, D., & Kilduff, M. (2002). Structure, culture and simmelian ties in entrepreneurial firms. *Social Networks*. https://doi.org/10.1016/S0378-8733(02)00008-4

Liden, R. C., Anand, S., & Vidyarthi, P. (2016). Dyadic Relationships. *Annual Review of Organizational Psychology and Organizational Behavior*, *3*(1), 139–166. https://doi.org/10.1146/annurev-orgpsych-041015-062452

Light, A. (2019). Design and Social Innovation at the Margins: Finding and Making Cultures of Plurality. *Design and Culture*, *11*(1), 13–35. https://doi.org/10.1080/17547075.2019.1567985

Manzini, E. (2015). *Design when everybody designs*. Cambridge, MA, USA: The MIT Press.

Manzini, E., & Rizzo, F. (2011). Small projects/large changes: Participatory design as an open participated process. *CoDesign*, *7*(3–4), 199–215. https://doi.org/10.1080/15710882.2011.630472

Mulgan, G. (2007). *Social Innovation: what it is, why it matters and how it can be accelerated*. London: The Young Foundation.

Mumford, M. D. (2002). Social Innovation : Ten Cases. *Creativity Research Journal*, *14 (2)*(2), 253–266. https://doi.org/10.1207/S15326934CRJ1402

Pierri, P. (2016). Why people do not rebel? In *International Perspectives on Design, Politics and Power* (pp. 1–10).

Pirinen, A. (2016). The barriers and enablers of co-design for services. *International Journal of Design*, *10*(3), 27–42.

Pol, E., & Ville, S. (2008). *Social Innovation : Buzz Word Or Enduring Term?, Working Paper 08-09*. https://doi.org/10.1128/JCM.39.10.3591-3596.2001

Pratt, M. G., & Dirks, K. T. (2007). Rebuilding Trust and Restoring Positive Relationships: A Commitment-Based View of Trust. In *Exploring positive relationships at work: Building a theoretical and research foundation.* (pp. 117–136). Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers.

Sahlins, M., & Graeber, D. (1965). On the Sociology of Primitive Exchange. In M. Banton (Ed.), *The Relevance of Models for Social Anthropology* (pp. 139-). London, UK: Routledge. https://doi.org/10.4324/9781315184951-5

Salazar, P. C., & Borrero, A. G. (2017). Letters South of (Nordic) Design. In *Nordes 2017: DESIGN+POWER* (Vol. 7, pp. 1–5).

Sheehan, N. W. (2011). Indigenous Knowledge and Respectful Design: An Evidence-Based Approach. *Design Issues*, *27*(4), 68–80. https://doi.org/10.1162/DESI_a_00106

Shore, L. M., Tetrick, L. E., Taylor, M. S., Coyle-Shapiro, J. A. M., Liden, R. C., & Parks, J. M. (2004). The Employee-Organization Relationship: A Timely Concept in a Period of Transition. In *Research in personnel and human resources management* (Vol. 23, pp. 291–370). Oxford, UK: JAI Press/Elsevier. https://doi.org/10.1017/CBO9781107415324.004

Simmel, G. (n.d.). *The Sociology of Georg Simmel*. Glencoe, IL: Free Press.

Sluss, D. M., & Ashforth, B. E. (2007). Relational identity and identification: Defining ourselves through work relationships. *Academy of Management Review*, *32*(1), 9–32. https://doi.org/10.5465/AMR.2007.23463672

Sparrowe, R. T., & Liden, R. C. (2005). Two routes to influence: Integrating leader-member exchange and social network perspectives. *Administrative Science Quarterly*. https://doi.org/10.2189/asqu.50.4.505

Spencer, R., Pryce, J. M., & Walsh, J. (2014). Philosophical approaches to qualitative research. *The*

Oxford Handbook of Qualitative Research, 81–98.

Tjahja, C., & Yee, J. (2017). Social hierarchy in design and social innovation : Perspectives from Thailand. In *Design Research Society 2018 Catalyst*. https://doi.org/10.21606/dma.2017.420

Tunstall, E. (2013). Decolonizing Design Innovation: Design Anthropology, Critical Anthropology, and Indigenous Knowledge. In W. Gunn, T. Otto, & R. C. Smith (Eds.), *Design Anthropology: Theory and Practice*. London: Bloomsbury.

Warwick, L. (2017). Designing Trust: the importance of relationships in social contexts. *The Design Journal*, *20*(sup1), S3096–S3105. https://doi.org/10.1080/14606925.2017.1352817

Zapf, W. (1991). The role of innovations in modernization theory. *International Review of Sociology*, *2*(3), 83–94. https://doi.org/https://doi.org/10.1080/03906701.1991.9971098

About the Authors:

Viola Petrella is a PhD student at Northumbria University, Newcastle Upon Tyne, UK. Her research focuses on the role and value of personal relationships in designing social innovation.

Joyce Yee is an Associate Professor at the School of Design, Northumbria University. Her research focuses on how design supports, enables and drive change through the creation of culturally specific innovative practices in communities and organisations.

Rachel E Clarke is a Senior Lecturer in Interaction Design at Open Lab, Newcastle University, UK. Her research focuses on the politics of participatory design for socio-technical infrastructures and smart urbanisation in more than human worlds.