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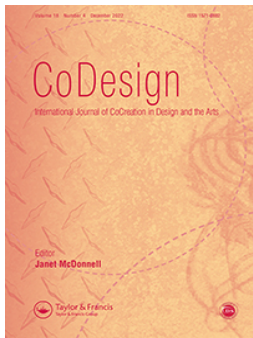
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Value-based conflicts experienced by junior design professionals in collaborative practice

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ABSTRACT

Junior design professionals experience conflicts in collaboration with others, with value differences being one of the issues influencing such conflicts. In a retrospective interview study with 22 design professionals, we collected 32 cases of perceived conflicts. We used a grounded theory approach to analyse these cases, resulting in five conflict categories that group 24 distinct value differences arising in 10 critical moments, an event that causes the value-based conflict. Thus, value differences are underlying the perceived conflicts of junior design professionals on many different occasions during collaboration with others. Conclusions are drawn on setting up guidelines for addressing values in co-design practices and supporting junior designers in their professional development.

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1. Introduction

Designing implies the integration of values from different parties involved in the design process (van den Hoven, Vermaas, and van de Poel 2015), and also an investigation of identified value differences between parties for finding inspiration and evaluating solutions (Lloyd and Oak 2018). The quality of collaboration depends on the different stakes and viewpoints of the design project participants (Détienne, Baker, and Burkhardt 2012). Conflicts in collaboration emerge when people hold different values, and as a result, prefer different solutions (Le Bail, Baker, and Détienne 2020; Lynn Fitzpatrick 2007). In co-design, the underlying assumption is often that involved parties should resolve value differences (i.e. find some form of acceptable expression) in the final design (Lloyd and Oak 2018). Our research looks at what happens when such resolution attempts become conflictual, in the sense that (some) parties cannot accept the values of others, leading to disagreement, interferences, and/or negative emotions (Barki and Hartwick 2004), during or after the co-design process.

In the present paper on value-based conflicts,¹ we will focus on the experience and perspective of junior design professionals. We do this for several reasons. First, as design educators, we have a direct interest in our design students becoming productive and happy junior design professionals. In this transition, we often see a mismatch between the

idealistic values professed by schools versus the commercial values professed by design agencies and client organisations. An additional factor here is the higher degree in which junior designers, compared to students at school, are confronted with values of others in professional collaborative practice. These divergences made us wonder how junior designers deal with values in co-design during this transitional period in their lives.

Second, the literature suggests that junior designers in collaborative practice often partner up with senior designers (Lawson and Dorst 2009), and many conflicts will then be handled skilfully by senior designers (Schön 1983; Lloyd and Oak 2018). However, the job conditions of junior designers have undergone changes caused by deregulation and fragmentation within design agencies and design departments in larger firms (Julier 2017). Designers now often work in separate business units, small design consultancies, or as freelancers (Banks, Gill, and Taylor 2013). As a result, much of the traditional types of master-apprentice systems in larger design agencies and departments have been broken down and replaced by systems that leave junior designers disempowered and unsupervised when collaborating with parties that hold conflicting values.

Third, in both a pilot study (van Onselen and Valkenburg 2015) and the present study, we interviewed junior and senior designers about value-based conflicts. In both studies, results show that junior and senior participants perceive value-based conflicts as most pressing and involving when they experienced these conflicts as junior designers. The senior participants were more confident about handling value-based conflicts experienced as a senior. For example, three participants from the pilot study shared experiences as junior designers who decided to quit a project due to a mismatch with their values. In projects later in their career, two senior participants shared less destructive coping strategies after the conflict occurred. One participant improved the design and the other found a compromise. Therefore, combining our observations in design education, the demanding and unsupervised design practice, and the urgent nature of these conflicts for junior designers, we decided to focus on the experiences and perceptions of junior designers in value-based conflicts.

Feast (2012) noted that personal goals and values are strong motivational drivers for designers, especially in collaborative design projects. Raising awareness of one's perspective and those of others are critical factors for good collaboration (Détienne, Baker, and Burkhardt 2012). As a junior designer, being aware of one's values is the first step in understanding value differences and potential conflict in collaborative practice. Some design schools invite students to acknowledge their values, also in practices of collaborative design.

Nevertheless, most approaches and methods developed for designers focus on conflicting values of collaborating stakeholders (e.g. Friedman, Kahn, and Borning. 2006) but leave out the values or value-based conflicts of the designers. Furthermore, when working as a junior design professional after graduation, there may be less room for an expression of personal values. This situation may result in experiences of value-based conflict by junior designers that lead to struggles and frustrations, and that are hard to bring up in conversations with others. A better way to identify value-based conflicts, and an improved understanding of what these conflicts are about may help out junior designers – these are the aims for this article.

2. Values, value differences and value-based conflicts

Values may refer to social and personal principles of designers that guide their actions. In the design literature, the term 'values' may refer to worth (den Ouden 2012; Boradkar

2010), priorities (Lynn Fitzpatrick 2007), ethics (Le Bail, Baker, and D tienne 2020; Manders-Huits 2011; Lloyd 2009; Friedman, Kahn, and Borning. 2006), or motivational drivers (Schwartz and Sortheix 2018; JafariNaimi, Nathan, and Hargraves 2015; Le Dantec and Do 2009). Values are seen as communicated meanings and personal goals (Chiaradia, Sieh, and Plimmer 2017), which may emerge when designing with others (Halloran et al. 2009; van der Velden and M rtberg 2015).

Designers embed a wide range of values in their work (Bonsiepe 1999; Lloyd 2009) and can strive for qualities as beauty, novelty, purity, and justice (Brouillette 2013). They can also ponder on the user, business, and societal values, such as comfort, viability and sustainability (Boradkar 2010; JafariNaimi, Nathan, and Hargraves 2015). Designers transfer and transform user, business, and societal values into design values (Le Dantec and Do 2009). Designers embody such values in objects through the design process (van de Poel 2009). Designers may use the presence of opposing values in their conversations without an immediate need to resolve them, but they use value tensions for evaluating their design proposals (Lloyd and Oak 2018). Designers continuously consider ways to integrate differing values or to find satisfying compromises (JafariNaimi, Nathan, and Hargraves 2015; Le Dantec and Do 2009; Lloyd 2009; Oak 2012). Thus, integrating user, business, societal and design values should be considered a central part of the design process.

In the design literature, some authors distinguish moral values from economic value as a way of evaluating design choices in other terms than costs and benefit (Boradkar 2010; Friedman, Kahn, and Borning. 2006). Other authors, however, have defined economic values as an integral part of designing (Chiaradia, Sieh, and Plimmer 2017; den Ouden 2012; Julier 2017), often the main reason for developing products (van de Poel 2009). We acknowledge this, and therefore we shall use values as social principles (including, but not limiting ourselves to economic values) that designers can evaluate as meaningful (or not) for their design work in collaborative practice. In the present paper, we include all values in collaborative design that may guide the behaviour of the designer (JafariNaimi, Nathan, and Hargraves 2015; Le Dantec and Do 2009).

The above distinction between moral and economic value points to a potential value tension or value difference, based on the motivational values of a designer, or values related to an overarching cause of an organisation or society at large. In this light, value differences might occur when values are not complementing but opposing another. A typical example of a value difference could be between sustainability and profit (Schwartz 2012; van de Poel 2009). Kasser and Ahuvia (2002) posited another opposition between values that can lead to conflict, between (1) intrinsic values sprouting from psychological needs focussed on personal growth, and (2) extrinsic values focusing on rewards and praise which can be anxiety-based. They further hypothesised that value differences could occur when intrinsic values oppose extrinsic values. Such a notion of two types of values could help us define value differences in design between the parties involved in design projects.

Value differences may result in value-based conflicts, which we define as disagreement, interference and/or negative emotion caused by value differences. Disagreement occurs when two parties perceive value differences and a need arises to resolve it (Barki and Hartwick 2004; Manders-Huits 2011; McCuen and Gilroy 2011). Conflict may also occur when another party interferes with or opposes the realisation of one's values (Barki and Hartwick 2004). Negative emotions may result from conflict (2004), for example,

fear and anxiety, which we see reflected in extrinsic values such as safety and dominance. Moreover, value-based conflicts arise when designers have to make trade-offs to solve value differences (Manders-Huits 2011; McCuen and Gilroy 2011). McCuen and Gilroy (2011) specified trade-off conflicts into: (a) values are weighted differently, (b) any decision requires the other party to give up their values, and (c) one or more parties resist a compromise.

To sum up, there are potential value differences that junior designers might experience in collaborative practice that develop into value-based conflicts. As of yet, literature is lacking that explores the value-based conflicts from the perspective of the junior design professional. The question remains: which conflicts based on value differences in collaborative practice do junior designers experience?

3. Research methodology

Our initial aim of this study was to explore how value-based conflicts in collaborative practice were recognised, perceived, and construed by professional designers. In different pilot studies, we explored observation, case study, and semi-structured interviews as methods. These methods were limited to deliver a comprehensive theory of value-based conflicts perceived by designers. Therefore, we choose grounded theory methodology to explore and thematise the concerns of participants (Glaser and Holton 2004). The first author conducted open interviews with 22 design professionals of all ages (Table 1). The first author is a trained interviewer and design lecturer, who could understand and empathise with the participants' experiences. In the open interviews, we used the life story approach aiming for detailed descriptions, patterns, and processes in a social context (Crouch and Pearce 2012; Bertaux and Kohli 1984). The open interviews provided insights on current and past value-based conflicts experienced by participants. Interviews are limited in reconstructing past events. Therefore, we collected additional data to complement the verbal accounts in reconstructing the value-based conflicts (Bleek 1987). Within the study, we learned that value-based conflicts experienced as junior designer was the central theme, next to the ways of coping with value-based conflicts, which we will describe in another publication.

3.1. Data collection

The participants were professionals in creative industries with an industrial design engineering degree or an arts-based design education in the Netherlands, and seven had an international education or experience. From the total of 22 participants, the first eight were designers with over ten years of experience, because we expected their experience of value-based conflicts would be most elaborate and informative. However, in an initial analysis of the interviews, we noticed that they were most passionate about their experiences as junior, and they stressed their importance for their professional development. At the same time, these senior designers struggled to recollect details of conflicts experienced as junior designers. With these emerging insights and newly surfacing questions, we adapted our sampling strategy (Muratovski 2016; Glaser and Holton 2004). We gradually interviewed designers with fewer years of experience until we arrived at interviewing seven junior designers. We stopped interviewing as we reached

Table 1. Participants overview.

Participant	Design field	Professional role	Work experience (years)
1	City planning	Entrepreneur	10
2	Product design	Former designer (switched to academia)	18
3	Product innovation	Entrepreneur	23
4	Product design	Department manager	13
5	Product design	Team leader	15
6	Lighting design	Entrepreneur	11
7	Landscape design	Freelance designer	18
8	Product design	Manager	15
9	B2B products	Designer	8
10	Consumer products	Researcher	9
11	Consumer products	Manager	12
12	Graphic design	Freelance designer	6
13	B2B products	Manager (former designer)	22
14	Digital products (former energy)	Designer (former project leader)	8
15	Software design	Team leader	16
16	Consumer products	Design engineer	6
17	Interaction design	Entrepreneur	15
18	Health care products	Designer	7
19	Brand & product design	Freelance designer	3
20	Packaging design	Project leader	2
21	Consumer products	Engineer	<1
22	Consultancy	Designer	<1

saturation in our data (Bertaux and Kohli 1984; Glaser and Holton 2004). Additional open interviews were held with two career coaches who have consulted and guided many designers in the Netherlands.

Participants were surveyed before the interview via email, on co-design experience and personal values. During the interview, participants explained in their own words their view on the topics from our interview guide (Table 2). Subtopics in the guide helped the interviewer to probe for more details if needed. The interview guide slightly evolved over the first four interviews and was frozen for subsequent interviews. For the last four interviews with junior designers, we revised the guide. We noted before that junior designers had

Table 2. The leading interview guide with topics and subtopics.

Topic	Subtopic
Personal values	Important in innovation projects Values of participants Expression of values in projects Meaningful innovation
Value differences	In collaboration (company, brand, team, client, user, etc.) Project/context description Conflict situation -> value difference Cause -> influence of role Action/solution -> confrontation/compromise Frequency -> regularly/often/few times
Value differences as junior designer	Experience of value difference as junior Values as junior designer Difference in coping with conflicts as junior Tips for junior designers
Background	Company, field, role, and education

problems identifying value differences and value-based conflicts. The topic guide for juniors started with current work experience (as an icebreaker), then continued with personal values, value differences recently experienced and finished with sharing examples of previous interviews. We sensitised the junior design professionals before the interview and used stimuli during the interview to probe for more examples of conflicts they experienced.

All recordings were fully transcribed, paying attention to details such as loud speech, pauses, and laughter. In our analysis, it was necessary to include not only the things said, but also its metacommunication on *how* it is said, to be able to interpret the participant's intention and emotion in the conflict descriptions (Briggs 1984).

Directly after each interview, the interviewer made a detailed summary of the interview. First, coding suggestions were added to 'pre-code' the data (Saldana 2009). Within a month after each interview, a structured summary was written using the interview guide as a structure (Miles and Huberman 1994). All participants reviewed and approved the summaries through email, with six of them making corrections or additions to the document.

Additional methods to triangulate data on the topic personal values were a sensitising survey, desktop research, and the feedback from summaries. For the topic value differences, we used summaries, the survey, desktop research and the two interviews with career coaches as additional methods. We triangulated biographical, workplace, and relational data of the participants with a small sensitising survey to participants sent before the interviews, observations of 15 workplaces (often including a company tour), and additional background data collected through company websites, publicly available documents online, and LinkedIn.

3.2. Data analysis

We refrained from presumptions of the results we could find using the grounded theory approach (Glaser and Holton 2004). From our data, we selected data related to value-based conflict situations as perceived by the participant as a junior design professional. We selected for our analysis cases of value-based conflicts experienced by the participant as an intern up to junior design professional with up to 7,5 years after graduation (Ahmed, Wallace, and Blessing Ahmed, Wallace, and Blessing 2003; Ball, Ormerod, and Morley 2004; Casakin and Goldschmidt 1999). This selection resulted in 32 individual case descriptions of value-based conflicts (from here onwards referred to as case) from 20 participants combining data describing the situation, context, actions, conflict, values, learnings, and reflections.

Following the grounded theory approach, we took five steps in our analysis: conduct open coding, perform axial coding, revise the data, synthesise the findings, and develop a theory (Muratovski 2016). The three authors individually coded the first four cases manually on small paper notes. The first author continued coding manually for the other 28 cases, which was later checked by the other authors. We coded while reflecting on contextual information from the interviews and the collected background information. The coding process resulted in 10 to 31 codes per case. The manual codes were grouped into thirteen conceptual categories, called axial codes (Table 3), to reduce the number of codes and to find similarities across cases (Saldana 2009). For example, in case 1, the codes `DISTRUST` and `FRICTION` and in case 2 `NOT UNDERSTOOD` and `CONFLICT` were grouped into

Table 3. Description of axial codes.

Axial codes	Manual codes	Description
Negative/conflict	Distrust, resistance, not included, conflict, etc. (Total: 177)	Applied to comments describing the conflict or negative emotions of the case.
Actor	Junior designer, stakeholders, consumers, client, etc. (Total: 106)	Identified actors or parties involved in the case. The central actor was the junior designer.
Action	Sending, involve stakeholders, design action, reflection, etc. (Total: 49)	Describes actions taken by the actors in the case. An action includes a verb and sometimes a narration that sprout from internal motives.
Positive/solution	Fantastic solution, enthusiasm, empathy, funny, etc. (Total: 93)	In most cases designers described a positive emotions or solution to the conflict.
View/perspective	Show perspective, association, perception of moment, important, etc. (Total: 26)	Linked to comments describing perspectives, change of perspectives or seeking understanding of someone else's perspective.
Commercial	Commerce, sharp price, budget, quote, etc. (Total: 33)	Used to identify statements related to commercial, business, or economic values in some of the cases.
Design/assignment	Proposal, design, idea, final design, etc. (Total: 28)	Related to objects or elements of the project or the assignment
Values	Company culture, immoral, prestige, ambition, etc. (Total: 15)	Used to identify non-commercial values related to ethics, culture, professional, or personal descriptions.
Time indication	Consequence, not back then, time invested, year delay, etc. (Total: 22)	Applied to comments related to time.
Role	Co-owner, subcontractor, intern, different role, etc. (Total: 8)	Describes the role of the junior designer in the case.
Professionalism	Professional involvement, learn to convince, no change during, entrepreneurship, etc. (Total: 42)	Identifies a statement on professional competence or describe learning moment to become a skilled professional
Relation	Intensive work relation, personal relation, connected together, etc. (Total: 6)	Appearing in later cases (>C21) a description of the relationship between different actors
Process	Fuzzy, high pace, messy, chaos, etc. (Total: 11)	Related to reports on an unstructured process.



Figure 1. The grouping process from value differences, to critical moments and conflict categories.

one axial code and named `NEGATIVE/CONFLICT`. (The codes are shown in SMALL CAPS throughout the article.) We used the `NEGATIVE/CONFLICT` code to identify the conflict relating the codes to conflict characteristics: disagreement, interference, and/or negative emotion (Barki and Hartwick 2004).

Six axial codes (`NEGATIVE/CONFLICT`, `VIEW/PERSPECTIVE`, `COMMERCIAL`, `VALUES`, `RELATION`, and `PROCESS`) helped us to recognise the value differences experienced in cases. To illustrate, in case 5, we found the axial codes `COMMERCIAL` (manual code: `COSTS`) and `NEGATIVE/CONFLICT` (manual code: `LOWER QUALITY`). Additionally, we could confirm the value difference while cross-checking with the original data.

In total, 24 perceived value differences based on at least two values were grouped through a constant comparison procedure (Figure 1). We relied on creative induction and creativity of the researcher. Additionally, we compared these merging categories with preceding insights from our data and research reported in the literature (Glaser and Holton 2004). We grouped comparable value differences and noticed similar events caused them. These events were moments of high uncertainty in the value-based conflict and therefore labelled as ‘critical moments’. We found ten critical moments that helped to place the 24 value differences into five conflict categories.

4. Value-based conflicts experienced as a junior professional

In this study, we have collected 32 cases of value-based conflicts from the perspective of a junior design professional working as an intern up to 7,5 years in collaborative practice. We identified five conflict categories: perfectionistic designer struggles, professional dilemmas, relationship challenges, differing perceptions, and creative frustrations (Table 4). Seventeen out of the 32 cases were based on a perceived value difference between the designer and one other party. In one case, the designer perceived a value difference with a group of stakeholders. In one other case, we identified a perceived value difference between the designer and two other parties (client and consumer) who pursued different values. Finally, in 13 cases, we identified an internal value difference that occurred because the designer struggled with the values by themselves.

4.1. Perfectionistic designer struggles

In 11 cases, conflicts were based on a value difference between business-economic values and idealistic design values. These ‘perfectionistic designer struggles’ occurred in two critical moments: product development discussions or trade-offs in the design assignment.

Table 4. Value-based conflicts experienced by junior design professionals.

Value differences	Critical moment	Conflict category
1. Time constraints – perfectionism	A. Product development discussion	Perfectionistic designer struggles
2. Costs – quality	B. Trade-off in the design assignment	
3. Income – quality	C. Disappointing professional behaviour in design teams	Professional dilemmas
4. Income – meaningful design		
5. Politeness – self-respect		
6. Problem – solution-oriented		
7. Ambition – enjoyment	D. Ambition choice: expert designer or management role	Relationship challenges
8. Security – ambition		
9. Structure – freedom	E. Dominant communication style of seniors or managers	Differing perceptions
10. Security – capability		
11. Dominance – helpfulness, social justice & honesty		
12. Dominance – understanding		
13. Authority – social recognition	F. Prestige overshadowing collaboration	Creative frustrations
14. Personal gain – collaboration		
15. Status – respect & friendship	G. Unexpected perspective of non-designers	Creative frustrations
16. Security – creativity		
17. Power & tradition – creativity	H. Lacking acknowledgement of designers' professionalism	Creative frustrations
18. Authority – meaningful		
19. Achievement – social recognition	I. Missing information from collaborating parties	Creative frustrations
20. Achievement – self-direction		
21. Influence – conformity	J. Unsupportive mentors or managers	Creative frustrations
22. Achievement – detachment & self-discipline		
23. Achievement – self-direction		
24. Stimulation – good will		

TIME CONSTRAINTS *versus* PERFECTIONISM (C14 and C26) and COSTS *versus* QUALITY (C5, C23 and C28) were typical value differences found for product development discussions. For example, in case 14, the designer wanted to deliver high-quality work, but felt pressed by time: '[...] it is exactly what troubled me a lot sometimes when I was younger. All these people telling me, it's ok, it's good enough, just stop. No man, it does not look good. Or it is still wrong or totally user-unfriendly. The project leader had to say: well enough.' During product development, designers also aimed for ingenious or aesthetical solutions with higher cost prices. The pursuit of commercial gains often clashes with the designers' creative ambitions (Julier 2017). On the one hand, time pressure may lead to a lesser quality and non-ideal solutions (Badke-Schaub and Frankenberger 1999). On the other hand, a designer just has to learn to deal with cost price decisions, deadlines, and fast-paced practice.

INCOME *versus* QUALITY (C4 and C21), and INCOME *versus* MEANINGFUL DESIGN (C3, C8, C9 and C17) were typical for trade-offs in the design assignment. Some freelance designers experienced a value difference between income and quality. Once the designer earned enough income, he or she could decide to reject the clients' terms. For instance, in case 4 the designer described: 'If I needed the money I might have accepted it. [...] As a junior, you are working on another level. You care about just working on delivering high-quality work.' This value difference led to an end in collaboration, in both cases 4 and 21. A variation of the value difference was between income and meaningful design. In case 17, the designer was working unpaid overtime for a meaningful job. Pursuing meaning is motivates us as human beings in general (Pink 2008) and meaningful innovation as designers specifically (Feast 2012; den Ouden 2012). Career coach 1 also mentioned that social motivations and idealism drive designers: 'In the sense of, I would like to mean something in this world. I want to try to contribute to a better world. I am not just here to make money, and money is only a bare requirement. [...] This comes to the surface, mostly when designers have a client with mismatching values.' This category shows similarity to moral dilemmas (van de Poel 2009) or value tension (Lloyd and Oak 2018) between economic value and ethical judgements (Le Bail, Baker, and D tienne 2020).

4.2. Professional dilemmas

Six cases contrasted professionalism with other values such as SELF-RESPECT or ENJOYMENT. These professional dilemmas resulted in two critical moments: disappointing professional behaviour in design teams and ambition choices.

Two value differences related to professional behaviour in design teams: POLITENESS *versus* SELF-RESPECT (C30) and PROBLEM *versus* SOLUTION-ORIENTED (C32). A possible dilemma for junior designers arose when small incidents shattered their ideal picture of how to design professionals work. In case 30, the designer balanced politeness with self-respect. He was asked to make notes. The project manager had overlooked notes and assumed the designer had not made them, spreading false accusations. The designer felt unappreciated and felt the urge to stand up for himself. The designer became frustrated with his colleagues' behaviour.

Four value differences related to the ambition of the designer: ambition (MANAGEMENT) *versus* creative work (ENJOYMENT) (C15), SECURITY *versus* AMBITION (C18), STRUCTURE *versus* FREEDOM (C20), and SECURITY *versus* CAPABILITY (C31-1). Two respondents performed management tasks, but also explained they rather do creative, hands-on work instead (C15 and C31-1). In case 15, the designer explains: 'I wanted to work at the design agency

side ... yes, that is also a value conflict.' The designer managed projects and her company 'outsourced conducting interviews and developing concepts to an agency, and I thought, now it becomes enjoyable.' In contrast to these cases, two respondents had a lot of ambition or talent for project management, but management was preventing them from taking the next step (C18), or even pushing them back (C20). Career coach 1 had observed designers could take on extra tasks such as consultancy or management, often choosing for the practical side of their work. Career changes could happen eventually. For example, the designer of case 15 switched jobs after another conflict rose to such heights that she quit her job for health reasons.

4.3. Relationship challenges

Differing values regarding achievement versus collaboration were found in six cases. Relationship challenges were divided up into two critical moments: a dominant communication style of seniors or managers and prestige overshadowing collaboration.

The designers experienced dominant communication styles of senior colleagues or managers when there was a value difference between: DOMINANCE versus HELPFULNESS, SOCIAL JUSTICE, and HONESTY (C6), DOMINANCE versus UNDERSTANDING (C11), and AUTHORITY versus SOCIAL RECOGNITION (C29). In case 29, the designer experienced an overpowering situation as an intern. He was once in a meeting with his mentor and the company director. The mentor dominated the conversation and talked about him as if he was not there. 'It is a strange feeling when someone talks about you in the third person while you standing next to him.' Designers might face challenges in relationships threatening successful collaboration. Communication is a key factor of good collaboration in design (Feast 2012; Maier and Kleinsmann 2013). The participants preferred an open and respectful way of communication, even if the other person had more experience or other views on the matter at hand. This insight is supported by Feast (2012), who found that, if designers feel intimidated by others, this leads to frustration, and the collaboration becomes one-sided.

The second critical moment happened when prestige overshadowed other values: STATUS versus RESPECT and FRIENDSHIP (C22), and PERSONAL GAIN versus COLLABORATION (C13 and C16). The designer in case 21 longed for appreciation, and felt his contribution was undervalued: '[...] why do I get so little? I put all my effort into it, I am an excellent designer, that I dare to say I am a good designer. But why do I get so little and the middle man earns much more money?' The designer supposed other people value status: 'Well, I stand differently towards money than they do. They value that differently, the status, the earnings and the profits.' This situation frustrated him: 'it annoys me if one becomes boastful about it, at my expense ...'. Teamwork and collaborative values are often taught in design programmes and can be found in the professional code of designers (Julier 2017). In collaboration, designers might encounter people who value prestige or economic growth more than themselves, which may lead to frustration, strong emotions, and even an end to the collaboration.

4.4. Differing perceptions

In five cases, designers faced different perceptions of their work while working with various stakeholders in projects. In the first critical moment, the designer dealt with different

perspectives on creative ideas and designs by non-designers. The value difference was between CREATIVITY and values like SECURITY (C1) or POWER and TRADITION (C2). Two respondents noticed that their clients held different perspectives. In case 1, personal values were not necessarily different for each party, but values were not adequately shared. The designer did not connect with other stakeholders, but came up with a design and presented a design with potentially a large impact. The value of the designer was 'self-direction', being creative and coming up with new ideas. 'In the beginning, I talked with some people and then I disappeared from the radar. A half-year later, I came back with a plan. I presented the plan in full expectation of their immediate enthusiasm [...].' The designer ignored the community in the process, and as a result, they rejected the idea. A widely recognised approach is the co-design approach (Sanders and Stappers 2012). Yet, dealing with diverging values (and their consequences) is still difficult for junior designers. This was also observed by both career coaches who reported that junior design professionals experience difficulties integrating the perspectives of others.

The second critical moment was focussed on their professional acknowledgement as a designer. It is related to the MEANINGFULNESS of their contributions (C7 and C12) and the recognition of their CAPABILITIES (C31-2). Being undervalued as a professional was frustrating for some designers. For example, in case 12, a graphic designer working in fashion was frustrated about decisions made by her employer: 'something you worked on for three weeks was wiped off the table, and you had to make a whole new collection in one week.' She felt her work was not appreciated. Being recognised for what you contribute supports job satisfaction (Judge et al. 2001). Especially when supervisors undervalue the contribution of a professional, it has negative effects on their wellbeing (Monnot and Beehr 2014).

4.5. Creative frustrations

In five cases, creativity was conflicting with achievement values. The creative potential of junior designers was hindered in two critical moments: missing information and unsupportive mentors or managers.

Missing information from collaborating parties made ambitious junior designers frustrated. ACHIEVEMENT values were conflicting with CREATIVE values (C10) or CONSERVATIVE values (C24 and C27). In case 10, the designer accepted tasks somewhat outside his core skill set and as a result, lacked vital information. 'In some cases, I was maybe placed in projects where I was not enabled to deliver something, almost like, 'here you go, this is the project, good luck', but you do not get the context, the right information, so you really deliver shit.' In case 27, new team members did not share information sufficiently, causing delays in the project. 'There were more misunderstandings. Because we still are not so connected, we do not know how everyone works.' Low group organisation may lead to missing information harming the design outcomes (Badke-Schaub and Frankenberger 1999). Additionally, lacking a shared understanding between the designers and the or team members can obstruct collaboration and innovation (Maier and Kleinsmann 2013; D tienne, Baker, and Burkhardt 2012).

Unsupportive mentors or managers created a struggle between CREATIVE values and ACHIEVEMENT (C19) or GOODWILL (C25). Two designers suffered from self-doubt, self-pity, and the feeling of mismanaging conflicts. It appeared the negativity was caused to a large extent by lacking support of a mentor or manager. In case 19, the designer worked on

proving himself worthwhile and on earning self-respect. ‘When I just started to work here, I became insecure, because this agency has many seniors, and uhh, a very performance-driven atmosphere, so people work hard.’ He reassured himself: ‘you have to assume, they hired me, so they will have some trust in me.’ Our cases illustrated that collaboration might be disturbed when the contribution of junior designers is unacknowledged by expert designers.

5. Exploring underlying value differences

We spotted a stark contrast, running through our cases between intrinsic (growth-oriented) values and extrinsic (anxiety based) values (Schwartz 2012; Kasser and Ahuvia 2002). In eighteen value differences, we noticed a seesaw effect when an extrinsic value was opposing an intrinsic value (Table 5). For example, being intrinsically motivated to find meaningful solutions, while at the same time requiring income as a freelance designer. Additionally, we found a competing effect in six value differences between two extrinsic values, such as authority and social recognition. This effect is unexpected since it could be assumed that proximal values are more compatible with one another, and therefore not conflictual (Schwartz 2012). Furthermore, we found no value differences between two intrinsic values, suggesting that intrinsic values are inherently complementary, which is in line with Schwartz (2012) and Kasser and Ahuvia (2002). Secondly, this finding suggests that value-based conflicts always involve one or two extrinsic values, and therefore touching on the anxieties of at least one of the parties involved.

Table 5. The seesaw and competing effects in value differences with extrinsic (e) and intrinsic (i) values.

Type of value difference	Value difference examples from the data
Seesaw effect: an extrinsic value is opposing an intrinsic value	Time (e) – perfectionism (i) Costs (e) – quality (i) Income (e) – quality (i) Income (e) – meaningful design (i) Politeness (e) – self-respect (i) Problem (e) – solution-oriented (i) Ambition (e) – enjoyment (i) Security (e) – ambition (i) Structure (e) – freedom (i) Dominance (e) – helpfulness (i), social justice (i) & honesty (i) Dominance (e) – understanding (i) Personal gain (e) – collaboration (i) Status (e) – respect (i) & friendship (i) Security (e) – creativity (i) Power (e) & tradition (e) – creativity (i) Authority (e) – meaningful (i) Achievement (e) – social recognition (i) Achievement (e) – self-direction (i)
Competing effect: two extrinsic (anxiety-based) values contest one another	Security (e) – capability (e) Authority (e) – social recognition (e) Achievement (e) – social recognition (e) Influence (e) – conformity (e) Detachment (e) – achievement (e) & self-discipline (e) Stimulation (e) – good will (e)

6. Discussion and conclusions

We analysed value-based conflicts that are experienced by junior design professionals with value differences that are underlying these conflicts surfacing at critical moments. In total, we identified 24 perceived value differences that could be placed in 10 critical moments, leading to five conflict categories: perfectionistic designer struggles, professional dilemmas, relationship challenges, differing perceptions, and creative frustration.

The categorisation of conflicts, the identification of value differences and critical moments can serve as a means for designers to investigate and address value-based conflicts. The different cases we collected can show junior designers a wide variety of value-based conflicts. Designers experience value-based conflicts not only related to factual information (Le Bail, Baker, and D tienne 2020; Barki and Hartwick 2004) or ethical concerns (Le Bail, Baker, and D tienne 2020; van de Poel 2009), but also related to career, relationships, and collaboration issues (Lawson and Dorst 2009; Feast 2012; Baker 2016). Emotions and negotiation strategies could be essential elements of value-based conflicts (Baker 2016). Further studies could explore the different components of value-based conflicts to improve our understanding.

Additionally, our findings indicate that junior designers perceive a broad spectrum of value differences, for example, economic worth (e.g. INCOME) versus design ethics (e.g. CREATING MEANINGFUL DESIGNS) and work ethics (e.g. STRUCTURE) versus intrinsic motivational drivers (e.g. FREEDOM). Future research could survey what are the most common values at stake for junior designers. Essentially, junior designers can use these findings to identify value-based conflicts they are experiencing, or have experienced in the past, to address and reflect on such conflicts in collaboration. Research-wise, our classification scheme can be extended and be accommodating in future observation or experimental studies to search for or simulate critical moments that have a higher likelihood to observe value-based conflicts taking place.

In line with our expectations is the seesaw effect of conflicts between intrinsic and extrinsic values. Two new effects we found are that conflicts can involve two competing extrinsic values but most likely not two intrinsic values. Further exploration of all these effects may be interesting. For example, Lekes et al. (2012) proposed that reflection on intrinsic values may lead to a shift in value priorities and improved well-being. Nevertheless, in many cases, intrinsic, growth-oriented values of designers were blocked by extrinsic values, either pursued by others or by themselves. A new question arises: could there be a differential effect of intrinsic and extrinsic values on learning and professionalisation?

Finally, our insights may be helpful for the professional development of junior designers working in collaborative practice. In our findings, we see that some critical moments draw the junior designer's attention towards other parties in the collaboration. At other times, the junior designer's attention goes out to self-awareness and building confidence. Other parties may still be involved in these self-oriented critical moments, either by triggering potential conflicts or by providing support as a mentor or mediator. An insight for professional development in co-design practices is that designers should not only learn to improve their social skills, but also strengthen a notion of personal values for successful collaboration.

Note

1. We focus on conflicts emerging from value differences. We therefore used the term value-based conflicts to avoid confusion with value conflicts which often refers to conflicting or opposing values (van de Poel 2009; Schwartz 2012).

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