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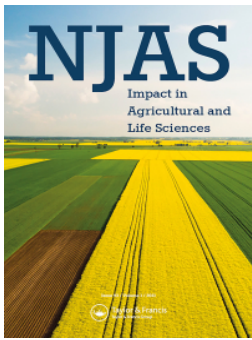
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Understanding diversity in gender norms within farming communities: A Q-methodology approach applied in Uganda

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ABSTRACT

Women's and men's opportunities are influenced by gender norms which shape their respective behaviours, roles and decision-making power. Gender norms thus influence farming outcomes and the ability of women and men to secure their livelihood objectives. We study gender norms and normative change in a smallholder farming community in Uganda. We argue that gender norms operate in sets and that multiple sets of gender norms may co-exist in the same location. To empirically demonstrate this, we employ mixed methods centred around the use of Q-methodology and further consisting of a survey, focus group discussions and individual interviews. In our study, 80 participants (50% men) ranked 40 statements pertaining to gender norms. Factor analysis yielded three different groups each representing a distinct "set" of gender norms representing varying appreciations for women's agency amongst other things. Survey data analysis found that participants' "gender" and "wealth status" were associated with these sets. We explored gender normative change through our qualitative tools and build an analytical framework in which we plot the three groups to help visualize and comprehend gender normative change processes. We conclude that the three groups can be understood as being part of messy normative change processes. Dynamic interplay between these groups is likely to act as a mechanism for change. Our findings and unique methodological approach provide useful entry-points for identifying sets of gender norms in particular locations. This opens the door to delivering gender transformative research, interventions and policies tailored to the diverse needs of women and men.

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1. Introduction

The diversity of smallholder farmer populations and farming systems in Sub-Saharan Africa (SSA) results in highly complex systems which pose challenges to rural development partners attempting to address low agricultural productivity, rural poverty, malnutrition, and gender inequality (Alvarez et al., 2018; Kuivanen et al., 2016; Long & van der Ploeg, 1994; Verkaart et al., 2018). This article focuses on gender norms as a key analytic variable which influences and, to some extent, steers systemic complexity in smallholder farming systems in SSA.

The term gender refers to the meanings people ascribe to what it means to be a woman or a man in a particular location at a particular time. Gender analysis seeks, among other things, to understand the corresponding ability to act – agency – that these women and men may have (Ferrant, 2015; Leigh Anderson et al., 2021; World Bank, 2012). Gender norms, a subset of social norms, provide guidance for actions, behaviours and roles considered acceptable and appropriate for various women and men in a given group at a particular time and place (Cislaghi & Heise, 2020). Whilst not all gender norms are negative, harmful gender norms tend to undermine women's opportunities to develop their thoughts, their agency and capabilities, and to be heard (Ardener, 1972; Harper & Marcus, 2018; OECD, 2021). This reduces the spaces for women to live up to their potential and empower themselves, their families and their communities (Christopherson et al., 2022; Idris, 2018; Were et al., 2021). Harper et al. (2020, p. 12) argue that harmful and discriminatory gender norms are a core factor in explaining why development can be such a slow, patchy and complex project, and argue that they hold back the development of entire societies.

Since gender norms shape the ways in which women and men engage in farming, they constitute an important influence on farm system configuration, management, and outcomes (Michalscheck et al., 2020; Rietveld & Van der Burg, 2021). Research shows that gender norms can constrain women's opportunities in farming and agri-food value chains, their adoption of agricultural innovations, and their agricultural production more profoundly than men's (Agarwal, 1994; Aregu et al., 2019; Das et al., 2021; Farnworth et al., 2019; Field et al., 2021; Gachuri et al., 2022; Mugisha et al., 2019; Petesch & Badstue, 2020; Tavva et al., 2013).). An understanding that gender norms permeate household interactions to the extent of creating different development pathways for individuals within a particular household is important, as is an understanding that these different development pathways influence the

development trajectory of the household as a whole (Ambler et al., 2017; Bernard et al., 2020; Sen, 1990). These understandings add important nuance and value to attempts to develop development pathways for households in rural communities. This notion provides the overarching theme of this paper.

Gender norms tend to operate in sets. For instance, if a gender norm in a particular location prescribes that “men should be breadwinners” this will usually be coupled with a norm prescribing that “women should be homemakers and caretakers” (Rao, 2012). Further clustering is likely in order to create a reinforcing network of norms. For instance, in this case, gender norms may further prescribe that women should be financially dependent on men, men should control expenditure, women’s place should be in the home, and men should represent their family in the public sphere.

Some norms lie so deep and are so fully naturalized that they lie below the level of conscious awareness (Bourdieu, 1977). In other words, people are not necessarily aware of the normative system they live within, a phenomenon Bourdieu (1977) terms “doxa”. Furthermore, no-one can experience complete autonomy from normative structures because everyone is a historical being. Heidegger explains that “the authentic human being is never an isolated individual; it can never rebel against or overcome its own socio-historical situation because a human being is always already a historical being” (Aho, 2003). Since people are embedded in normative structures, norms lie outside the immediate control of individuals and greatly influence and constrain a person’s choices (Farnworth et al., 2017; Stewart, 2013). As a consequence, norms prevalent in a given community affect individual choice through shaping individual needs and preferences. They serve as criteria to help people select potential courses of action. These criteria tend to be shared within a community and are seen to embody a common value system (Bicchieri et al., 2018). Petesch et al. (2018a, b) describe the prevailing set of gender norms in a specific community as the “Local Normative Climate”. They use this concept to characterize communities in terms of gender norms and to what extent these encourage or discourage community members’ freedom and agency (Petesch, 2022). This article, however, questions the concept of a local normative climate and the idea that gender norms are homogenous across a location. Whilst we concur that people are historical beings and therefore limited in their ability to conceptualise beyond their norms that have created them, we argue that different “sets” of gender norms can exist in one place. Such norms may co-exist, influence each other, and battle for supremacy over time. This very process, in itself, removes gender norms from the realm of doxa and holds them up for scrutiny, reflection and discussion by the people concerned. This process, we suggest, facilitates the ability of people to escape their historicity to a limited degree. This in turn is a valuable stepping stone towards Sen’s (1993) argument that freedom to achieve well-being is a matter of what people are able to do and to be, and thus the kind of life they are effectively able to lead.

Our aim is to explore gender norms and gender-normative change processes by engaging in discussion and reflection with women and men in a rural community in western Uganda. We contribute to theory by empirically demonstrating the existence of several distinctive sets of gender norms in a single community. We further trace how social identifiers affect adherence in a particular set of gender norms. In the final part of our Results section, we built an analytic framework using our empirical results to see whether interactions between sets of norms themselves might provide a mechanism for change towards more gender-equality. Our novel methodological approach, we employed Q-methodology, a participatory, semi-quantitative method as part of mixed methods, is set out in the next section.

2. Methodology

This study applied an explanatory sequential mixed methods approach. We utilized Q-methodology and a structural characteristics survey in Phase 1 of data collection which informed the design of Focus Group Discussions (FGDs) and individual semi-structured interviews in Phase 2.

2.1. Study area

The fieldwork was conducted in the first 3 months of 2020 as part of a multi-year project during which several studies were conducted in Rugaaga sub-county of Isingiro District, Uganda (Rietveld & Van der Burg, 2021; Rietveld et al., 2021). Isingiro District, formerly part of Mbarara district, was administratively created in 2006. Isingiro District is part of the sub-region Ankole in the Western region of Uganda and borders Tanzania in the south (Figure 1). The area is prone to drought (Wichern et al., 2019). Nationally, Isingiro district is known for its production of large bunches of cooking banana, a preferred staple food. Rugaaga subcounty represents a particularly interesting and relevant study site as it went through the kind of transformations often advocated as essential to rural development (Zadawa & Omran, 2020). From being an isolated, sparsely populated place 20–30 years ago, with livelihoods revolving around subsistence farming, Rugaaga has become a production and trading hub for cooking banana and hosts a rapidly increasing population (Rietveld & Van der Burg, 2021; Rietveld et al., 2021). Increased connectivity with the market economy and rising urban demand for cooking banana has driven farming communities to specialize in this staple food crop, switch to mono-cropping, intensify banana crop management, and expand banana cultivation to natural shrub grasslands (Ochola et al., 2022; Ronner et al., 2023).

In terms of gender equality, some progress has been made over the past few decades, mostly as a consequence of government policy. Access to education has expanded for boys and girls, public offices have opened

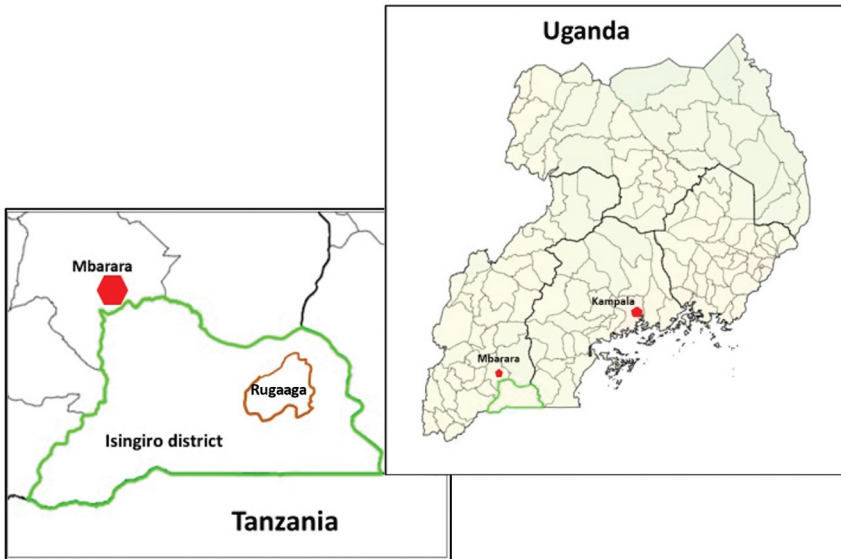


Figure 1. The location of our study area Rugaaga subcounty in Isingiro district in the Western region of Uganda.

up to women, and gender-sensitive legislation was passed in 1995 (Acosta et al., 2019). Yet progress is patchy. Acosta (2020) examines the intent and process of gender mainstreaming in Uganda to concluded that important tensions between generalized discourses on gender in agricultural development and the actual practice of mainstreaming gender equality exist at all levels. These processes tend to naturalize and favour patriarchal local realities over global norms for gender equality. For instance, customary law is recognized alongside statutory law and limits the ability of women to own land (Acosta et al., 2019; Harper et al., 2020; Tripp, 2004). Discriminatory gender norms continue to uphold power inequalities between women and men particularly in intra-household decision-making where many rural women experience very little say (Acosta et al., 2019).

This said, gender norms vary across the country as they are influenced by wider social norms which themselves vary by ethnic community (Haas de & Frankema, 2018). Broadly, women in Western Uganda are considered “especially disadvantaged” compared to women in other regions of Uganda when it comes to the “gender gap in agriculture”, a metric composed on basis of factors such as: responsibility over children; access to external inputs; to extension advice; to farm labour, to technology; to land; level of education and control over farm income (FAO, 2022).

2.2. Data collection phase 1

2.2.1. Q-methodology

Q-methodology is a semi-quantitative approach, developed by Stephenson (1953), which allows for the systematic study of human subjectivity; perceptions, styles, discourse and opinions (Fairweather & Klonsky, 2009; Zabala, 2014). It aims to reveal the way individuals think about a specific subject (Watts & Stenner, 2005) and assesses if groups of individuals perceive the subject similarly (Stephenson, 1953). Stemming from psychology, Q-methodology has been applied in many scientific fields including policy, environmental and farming system studies (Fairweather & Klonsky, 2009; Nordhagen et al., 2017, 2021; Pinillos et al., 2021; Sumberg et al., 2017; Timler et al., 2023; Walder & Kantelhardt, 2018). However, apart from Nordhagen et al. (2021) who conducted a sex-disaggregated analysis of their Q-sorts on crop choice in Papua New Guinea, Q-methodology has not been applied in relation to gender and agriculture to our knowledge. Using Q-methodology to investigate discourses on gender norms presents a completely new application.

The empirical data collected with Q-methodology is a collection of “Q-sorts”. Each Q-sort consists of sets of statements sorted by an individual in a specific arrangement (Zabala, 2014). The statements represent the discourse on a specific subject. Within the frame of the discourse provided, participants position themselves through bringing out social constructions based on their *in situ* experience rather than the intellectual constructions of the researcher (Exel van & De Graaf, 2005; Fairweather & Klonsky, 2009). The statements, written in local language, are usually printed on cards which participants read themselves, or which are read out by the researcher (Nordhagen et al., 2017). Each respondent values a statement by placing it on a scale from “strongly disagree to strongly agree” thereby expressing their individual perspective on the subject (Zabala, 2014). The scale often takes the form of a forced distribution chart (Timler et al., 2023) (Figure 2a) but can have any shape. Only one statement can be placed per box. A subsequent factor analysis of the values that individuals place on each statement permits the grouping of individuals with similar value placements. The researcher can choose to ask the participant to comment on specific statements, for instance those that are placed in the extremes of the scale. These elaborations can support building the narratives of the individual factors which result from the factor analysis.

The rule of thumb for sampling respondents for Q-methodology studies is that the sample must be diverse, rather than large or representative, since the aim is to capture the whole range of opinions on a discourse (Zabala, 2014).

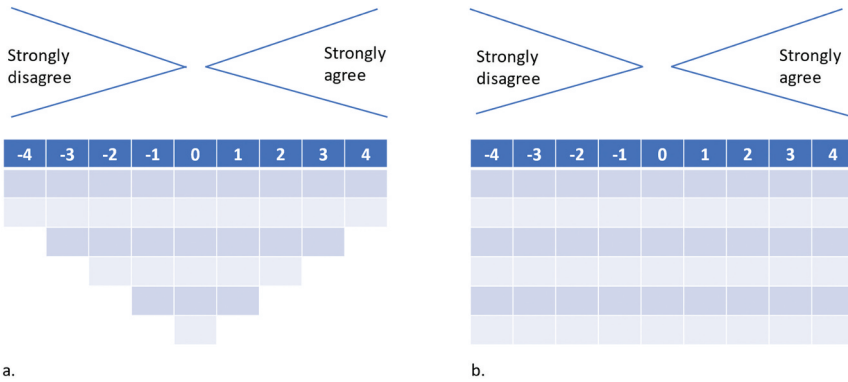


Figure 2. a. Q-sort chart with a normal (forced) distribution. b. Q-sort chart with a guided distribution.

2.2.1.1. Data collection Q-methodology. To develop the set of statements used in this study we drew on earlier studies conducted in 2015 by the lead author using the GENNOVATE methodology (Petesch et al., 2018c) to investigate gender norms in relation to agricultural innovation (Rietveld & Van der Burg, 2021; Rietveld et al., 2021). This allowed the development of contextually relevant and valid statements. We developed an initial set of 80 statements, from which a final set of 40 statements was selected through expert review. The selected statements were translated into *Ryankole*, the most common local language spoken in Isingiro district, and printed on index-cards together with the English translation. A number was assigned to each statement and printed on the back of the card. After completion of the sort, the facilitator would turn all cards and take a photo of the sort to capture the data for later processing. During the sorting the facilitator would record or note down comments made by the participant regarding their valuing of the statement on the scale.

During pilot testing, the participants had great difficulties completing the sort correctly using the forced distribution chart (Figure 2a). When we urged the participants to complete the sort and place a statement in each box, the quality of the exercise decreased as the participants began to randomly place cards in the remaining boxes. We decided to try out a “guided” distribution where we presented the participants with a scale of 54 boxes (Figure 2b). This allowed participants to place statements in a less rigid manner which worked very well.

2.2.1.2. Participant sampling. In line with the requirements of the Q Methodology, the sampling process aimed to maximize diversity among respondents, and to arrive at balanced numbers of women and men. We knew from earlier studies in the sub-county that altitude – living on the plateau or in the valleys – was a good proxy indicator for diversity since altitude is associated

with ethnicity and time of arrival (establishment/immigration) in the area. Different ethnic groups have established themselves in different places. The earliest arrivals began living on the plateaus and later arrivals – when forests were mostly cleared – in the valleys. Since land became increasingly scarce people began to live on slopes (Rietveld et al., 2021). We used a random stratified sampling frame created by Braber den et al. (2021) as the basis of our sampling strategy since it used elevation as a basis for sampling. Braber den et al. (2021) defined three elevation strata in the study area, randomly sampled three cells in each stratum (totalling nine cells) and then sampled five households per cell, to arrive at a total of 45 households. For each of these selected households, land under banana was measured using GPS. We included all 45 households in our selection but in some cases changed the respondent of the household from husband to wife or vice versa, to arrive at equal numbers of men and women participants.

To arrive at our predetermined sample size of 80 and to further increase diversity, we used snowball sampling to select additional households (Johnson, 2014). In a bid to include landless labourers, we asked all study participants whether they hired landless labourers and if so, whether they could provide us with their names and contact details. This way we selected 13 landless labourers residing within the study area to participate in our study. An additional 22 households were purposively selected from the same nine cells to arrive at maximum diversity on the basis of sex of the household head and of the respondent, marital status, age, ethnicity of the respondent and estimated size of the banana plantation. For these additional participants we measured land under banana as well. Our final sample included participants from all seven parishes of Rugaaga sub-county and totalled 40 women and 40 men from 80 different households.

2.2.1.3. Informed consent. All participants were informed about the objectives, duration and content of the study prior to their participation. We explained that their participation was voluntary and that they could withdraw their participation at any time. All 80 participants agreed to participate voluntarily.

2.2.1.4. Analysis of Q sorts. All participant Q sorts were analysed in R Studio (qmethod, Zabala, 2014). Factor analysis and a varimax rotation were used to extract factors that represent coherent perspectives on the discourse. Factor extraction allows to reduce the number of variables in a dataset by quantifying the extent to which each variable is related with a given factor. In this case, it was used to analyse how many participants provided similar enough responses that they could be grouped together in one factor. An inductive strategy was applied to determine the number of factors including running multiple tests such as the Scree Test and Parallel Analysis test.

2.2.2. Structural characteristics survey

We conducted a short structural characteristics survey with each Q-methodology participant prior to the Q-sort. The survey recorded basic information such as age, sex, level of education, marital status, as well as questions related to the household concerning its composition, labour division, off-farm income, on-farm income specified for banana, total crop and livestock, and household banana consumption. We also measured total land under banana cultivation which is a good indicator of wealth in the study area, since banana is the primary cash crop and source of income (Braber den et al., 2021; Ronner et al., 2023).

2.3. Data collection phase 2

The second phase of research aimed to obtain a deeper understanding of the differing perceptions elicited through Q-methodology. Based on the Q-methodology analysis of all 80 participants, we extracted three factors representing three different groups of people with similar perceptions about the statements we asked them to sort. We will henceforth refer to these factors as “groups”. We used this grouping to select participants for the second phase of data collection consisting of semi-structured individual interviews (SSIs) and single-sex focus group discussions (FGDs). For the SSIs, one man and one woman were selected per group, based on their point of centrality in each factor (most representative for the group). For the FGDs, the next six most representative female and male participants for each group were invited to participate. For Group 1, the most representative female participant participated in both the SSI and the FGD because there were only six women available to participate in this FGD. Since Group 2 hosted only two male participants we had to compromise and conducted the FGD with these two men and the SSIs with two women. In summary, we conducted six SSIs with two men and four women, and six single-sex FGDs in which 14 men and 18 women participated. A total of 16 men and 21 women participated in this second phase of data collection and together they represented 46% of our phase 1 original sample of 80.

2.3.1. Focus Group Discussions

After the preliminary analysis of the Q-sorts and informed by these results, FGD guidelines were developed for each group. The objective of the FGDs was to explore the Q-methodology results in depth, to triangulate the gender-specific perspectives ascribed to the three groups, and to elaborate on the dynamic nature of these perspectives by both looking back in time and forward to the near future. We held single-sex FGDs, one with men and one with women for each of the three groups (6 in total). The FGD tool consisted of two modules:

2.3.1.1. Module 1: The Ladder of Power and Freedom. Using a tool called “The Ladder of Power and Freedom” (Petesch & Bullock, 2018) we asked the

participants to look back and explore changes over time (2020, the year the fieldwork was conducted, versus 2010) in men and women's respective agency. The process involves showing a five-step ladder to FGD participants. Steps on the ladder represent increasing personal agency to make decisions about important affairs in life. Each participant is asked to individually and privately identify on a slip of paper where they believed most individuals of their own gender in their community currently stand on that scale (in the year 2020). The results are aggregated by the facilitator and shown to the group. After discussing the collective ratings, the same questions are asked in relation to women's and men's agency 10 years prior (in 2010). The facilitator then probes into differences and changes over time.

2.3.1.2. Module 2: Anticipated Trends in Gender Norms. This module is designed to look forward and evoke a discussion on possible changes of norms over the coming 10 years. We selected seven of the Q-sort statements – which we thought were specifically relevant, interesting or potentially enlightening – for discussion. We summarized how participants had rated and commented on these per group and asked participants how they expected people in their community to feel about this norm/statement in 10 years.

2.4. Individual interviews

Six semi-structured individual interviews (SSIs) were conducted with two individuals from each of the three groups. The objective of these SSIs was to gain in-depth insights into participant's perceptions as revealed by the Q-sort and the linkages to their households and livelihoods, their assessment of their agency, and their current gender role in their home and farm.

3. Results

3.1. Structural characteristics of participants

Over half of women (26) and men (28) participants identified themselves as Muyankore, the most common ethnic community in the western region of Uganda. The second most mentioned ethnicity was Baganda (eight women, three men), followed by Bakiga (four women, three men) and "from Tanzania" (two women and two men). The three remaining men identified as Munyarwanda, Mukooki and "Congolese" respectively. All participants spoke the local language Ryankole. Most participants were born outside of Rugaaga sub-county. Most participants were married (Table 1). The four currently unmarried men in the sample were divorced (two), widowed (one) or single (one). For women, nine were widowed, five were divorced and one was single. five men and six women were currently in a polygamous marriage. Household size

Table 1. Summary of structural characteristics of surveyed participants.

N/	Participants' age in years*	Number of participants born in Rugaaga sub-county	Number of participants married	Participant's education obtained in years (average)	Participants' household size – (Average number of members)	Number of participants living in household owning no land
Women (n=40)	44.0 (20–70)	11	25	5.3	5.5	4
Men (n=40)	42.5 (18–74)	18	36	5.6	6.3*	7

*Median age at time of data collection with range of ages indicated between brackets.

**Excluding one polygynous household consisting of husband with approx. 11 wives and total of 90 members.

ranged from 1 to 11 persons, except for one polygamous household consisting of 90 persons. The size of land under banana owned, ranged from 0.02 to 23.4 acres with a median of 1.4 acres (average 2.6 acres). Other structural characteristics of surveyed participants are summarized in [Table 1](#).

3.2. Q-sorts

The analysis of the Q-sorts yielded three distinctive groups (factors) which accounted for 53% of the variance in participants' ranking. According to Watts and Stenner (2005), any percentage above 35–40% for total study variance explained is a positive indication that the study was implemented correctly. Of the 80 participants, 70 loaded significantly onto a group and could be grouped in one of the three factors/groups. Each group was analysed and labelled based on group loadings, statement rankings by group, z-scores by group, and distinguishing and consensus statements ([Table 2](#)). Participants' views on the statements were heterogeneous overall, and only two out of 40 statements were identified as "consensus" statements; they generated similar valuations across the sample (negative or positive). Group sizes were 28, 25 and 17 respectively for group 1, 2 and 3. We named the groups and provided descriptions.

3.2.1. Group Labels

3.2.1.1. Group 1: Patriarchy in Practice (PiP). Participants considered men to be the normative "farmer", arguing that men have the capacity (e.g. physical strength) and the resources (notably land) necessary for effective farming. It is therefore self-evident to PiP members that men should lead and control farming, especially the production of banana. Participants strongly rejected the possibility of women farming commercially. They emphasized men's status as head of the household and owner of land; and the importance of women showing respect for men's status, for instance by asking permission to leave the home, or to plant a crop. Men's role as income provider was

Table 2. Overview of statements used by participants to generate the Q-sort with typical ranking by group (+4 strongly agree to -4 strongly disagree), sorted from extreme positive to extreme negative scores and Z-scores. Distinguishing statements are in shades of orange, with darkest shade indicating the statement is distinguishing for all factors. Consensus statements are highlighted in green.

Statement	1. 'Patriarchy in Practice'	1. Z-score	2. 'Women's Struggle'	2. Z-score	3. 'Towards Equality'	3. Z-score
40. A good husband is one who only marries one wife	1	-0.57	4	-1.58	4	-1.45
21. It is important for women to receive the same agricultural trainings/information as men	3	-1.2	2	-1.19	3	-1.1
30. A wife must ask the husband for permission when leaving the compound	4	-1.66	2	-1.05	2	-0.97
19. I believe both daughters and sons should have equal rights to (inherit) land from their parents	0	-0.4	4	-1.4	3	-1.13
14. A man who does not own land feels unfulfilled	2	-0.8	3	-1.33	1	-0.85
34. Serving nutritious meals is a shared responsibility between husband and wife	3	-1.29	2	-1.09	1	-0.71
8. Men should always inform their wives about all of the money they earn	0	-0.41	1	-0.67	4	-1.15
5. Both women and men can sell bananas	0	-0.35	1	-0.73	3	-1.1
13. Men and women should have the same access to land	0	-0.16	2	-0.86	2	-1.03
3. It is acceptable for men to weed banana plantations	2	-0.96	1	-0.66	1	-0.77
28. If I inherit money, my spouse and I will decide together how to spend it	2	-0.73	1	-0.51	1	-0.91
1. The man of the house is responsible for land and crop management and delegates to the family	4	-1.38	0	-0.23	0	-0.47
4. Women should always inform their husband about all of the money they earn	2	-1	-1	-0.48	2	-0.98
37. A woman needs her own money	-1	-0.42	3	-1.37	0	-0.23
10. When the wife is busy, the husband looks after the children	0	-0.2	0	-0.14	2	-0.99
24. A husband is happy when his wife earns money	1	-0.61	0	-0.14	1	-0.56
33. A woman can harvest whatever bananas she needs for home consumption	1	-0.55	1	-0.71	0	-0.18
6. I feel ashamed for working on another person's farm	0	-0.12	3	-1.27	-2	-1.41
16. Commercial farming is not for women	3	-1.09	-1	-0.36	-1	-0.29
17. If a husband has multiple wives, he should allocate a plot to each wife	0	-0.43	0	-0.34	1	-0.77
22. I decide what inputs need to be purchased and when for crop cultivation	1	-0.66	0	-0.24	0	-0.23
9. Women should prioritize food preparation for the family over income generating activities	1	-0.73	-1	-0.41	0	-0.02
35. It is the husband's responsibility to ensure the family has enough to eat	1	-0.61	-1	-0.71	0	-0.17
20. If I had to choose between sending my son or daughter to school, I prefer to send my daughter	-1	-0.38	1	-0.67	-2	-1.27
27. The wife should pay the school fees	-1	-0.5	0	-0.2	-1	-0.29
32. Women can ride a bike or motorcycle alone to move around	-3	-1.43	0	-0.1	0	-0.14
2. There is no problem with women working outside of the community	-2	-1.3	-1	-0.38	0	-0.51
11. It is desirable for men to participate more in household tasks (cooking, cleaning, caring for children)	-2	-1.41	-1	-0.68	0	-0.52
18. A woman does not need permission from her husband to plant banana	-2	-1.24	0	-0.02	-1	-0.25
6. I spend my money as I want	-1	-0.26	0	-0.01	-2	-1.13
39. A real man has many children	0	-0.12	-2	-1.38	-1	-1
12. Men should use the plots with highest soil fertility	-1	-0.09	-2	-0.74	-1	-0.42
23. A man should have sole control over income from bananas	0	-0.19	-2	-1.35	-2	-1.14
25. It is acceptable for a wife to make more money than the husband	-4	-2.04	0	-0.5	-1	-0.58
7. A good husband accepts his wife to work on other people's farms	-3	-1.47	-2	-1.05	0	-0.12
31. I leave the compound whenever I want and come back whenever I want	0	-0.24	-3	-1.52	-3	-1.45
15. I can sell a plot of land without my husband/wife's approval	-2	-1.29	-4	-1.91	-3	-1.6
38. It is beneficial for a household if a husband has multiple wives	-1	-1.18	-4	-1.89	-4	-1.97
36. As an unmarried woman, you need a man to provide your basic needs for you	-4	-1.82	-3	-1.42	-3	-1.71
29. It is ideal for a woman to have her first child before age 18	-3	-1.79	-3	-1.77	-4	-2.01

emphasized. Women should not work outside of their own household's compound and fields for an income but rather take care of their household. Married women do not need their own income. A wife with money was considered as a threat to the husband's authority and therefore their marriage.

Within PiP, perceptions diverged on two important issues; 1) Some participants expressed strong support for polygamy whilst others were critical, and 2) some participants were vehemently against girl children inheriting land whilst others were in favour. The divergence on these topics sets PiP apart from the other groups, where there was relatively homogeneous support for equal inheritance and a dismissal of polygamy. Distinguishing "only" statements for PiP were S1, S13, S16, S18, S19, S23, S30, S31, S32, S38 and S40 (Table 2).

3.2.1.2. Group 2: Women's Struggle (WS). Participants loading into this group emphasized and were critical of men's advantaged position compared to that of women. Although they identified strategies or changes which could improve women's position (like women making more money than their

husband), they anticipated possible repercussions by men such as domestic violence or less access to financial resources, and thus overall negative effects on the marital and household wellbeing. They strongly defended women's need for their own money – and emphasized women's need to hide their income from their husband in order to maintain control over it. They were in favour of men disclosing their income and narrated about men “wasting” money, but they also accepted men's authority over financial decisions as an unchallengeable fact. They generally disagreed with the statement that women cannot be commercial (banana) farmers, but they identified challenges to women's participation. These included men's meddling, the strenuous nature of banana farm management, the need for male labour, and an internalized normative perception that women are lazy by nature and lack farm organizational skills. Men taking on reproductive tasks such as childcare and cleaning was dismissed as undesirable. Respondents emphasized men's responsibilities in providing for their household and as a consequence consider polygamy, and men with many children, as threats to women's and their overall household's wellbeing because they associated this with high likelihood of resources to be spread thinly. Distinguishing “only” statements for WS were: S4, S14 and S24 (Table 2).

3.2.1.3. Group 3: Towards Equality (TE). TE participants emphasized the equality of women and men, for instance when it comes to educating girls and boys or to land inheritance practices. They considered the household as a cooperative unit in which wife and husband ideally work together as equally responsible partners for the benefit of the whole household. They also agreed that both spouses should disclose their income to each other to allow for joint budgeting and planning. They were progressive in their opinions regarding women deploying economic activities and in their attitude towards men taking up reproductive tasks such as childcare and cleaning. Polygamy was strongly rejected by these participants. When it comes to women being able to farm banana commercially, they raised practical objections such as women's access to land and finances rather than normative constraints. Distinguishing “only” statements for TE were: S8, S17, S26, S33 and S34 (Table 2).

3.2.2. Alignment between group loadings and structural characteristics

The groups in conjunction with the structural characteristics data show clear gender patterns (Figure 3): only TE comes near to a gender balance (11 women and 9 men). Median age of group participants was 39 years for TE, 42 years for PiP, and 45 years for WS.

Household resources and income averages were aligned with the groups, showing a clear pattern of diminishing wealth from PiP to WS to TE. Banana sales made up the bulk of on-farm income for all three groups, but both the

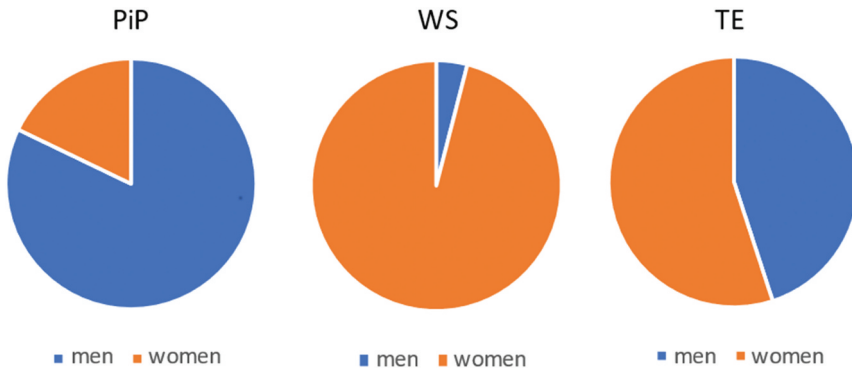


Figure 3. Gender division of groups; with group 1 “Patriarchy in Practice” (PiP) $n=28$; group 2 “Women’s struggle” (WS) $n=25$ and group 3 “Towards equality” (TE) $n=17$.

absolute volume of this income and its percentual share of total income was much lower for TE participants (33% of total income from banana) than it was for PiP (52%) and for WS (58%) (Table 3). The volume of annual income derived from casual farm labour (Table 3), was higher for TE and WS than it was for PiP. This is not surprising as providing casual farm labour is a livelihood strategy for poorer households. On average, PiP participants owned the largest banana plantations, earned most income overall, and benefited from more diverse sources of income such as livestock and non-farm activities (e.g. shop keeping; taxi or transport services and trade of agri-crops).

3.3. In-depth exploration of the Q-groups

3.3.1. Looking back

With the Ladder of Power and Freedom (LoPF) exercise, participants per group ranked and reflected on the level of agency at the time of the FGD and 10 years prior, of people of their own gender within their own community. LoPF results showed that in five out of six FGDs (Figure 4), participants reported an increase in perceived agency for people of their own sex over the period 2010–2020. The exception was the male FGD of Group 2. Women’s Struggle; they reported no change. However, they provided themselves with high agency a decade ago continuing into the present.

The increase of perceived agency for the men of the group Towards Equality (TE), and for women of all three groups, was especially significant. TE men described their reported rise in agency as “a new awareness” brought about by formal education and government sensitization. They discussed having developed an understanding about the importance of actively planning for one’s own welfare and future and working hard to improve their livelihood conditions. Women referred to economic empowerment (a new

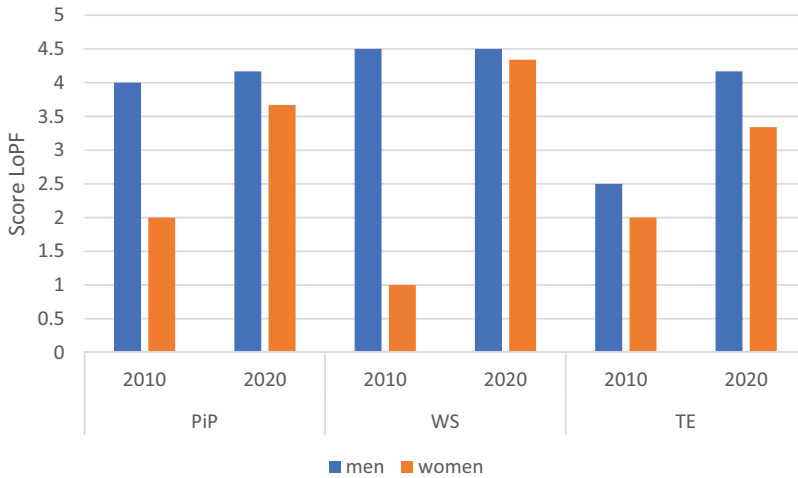


Figure 4. Results of the “Ladder of power and freedom” exercise for 2010 and 2020 for women and men per groups Patriarchy in Practice (PiP); women’s Struggle (WS) and Towards equality (TE). The Y-axis shows average score on the ladder of power of freedom.

Table 3. Average household resources and annual income for every group (Patriarchy in Practice; women’s Struggle and Towards equality).

	Patriarchy in Practice (PiP)	Women’s struggle (WS)	Towards Equality (TE)
Average household size (persons)	9	5	6
Average size of land under banana (Acres)	3.1	2.3	0.8
Average annual income from livestock only (UGX)*	1,064,000	172,000	36,000
Average annual income from banana only (UGX)	4,193,000	3,506,000	966,000
Average annual income from other crops (non-banana) (UGX)	1,215,000	1,022,000	359,000
Average annual off-farm income from casual labour only (UGX)*	193,000	443,000	939,000
Average annual off-farm income (non-casual labour) (UGX)	1,440,000	864,000	636,000
Average annual total income (UGX)	8,063,000	6,007,000	2,935,000
Average annual total income (USD)**	2181	1625	794

*Significant ($p < 0.05$).

**2020 average conversion rate was 1 USD = 3697 UGX.

ability to generate income) and to decision-making (planning and deciding jointly with the husband) as key-elements of their increased agency in their narratives.

In both the FGD and individual interviews with women in Patriarchy in Practice (PiP), women argued that although their level of agency had increased, men ultimately controlled “everything”. PiP men echoed this

sentiment by stating that women's increased participation in household decision-making and income generation was fine as long as man's position as head of the household, who is in control and demands respect, was not challenged. One male PiP interviewee (36 years old, married) explained for instance that he divorced his first wife because: *"she did not respect me as her husband; she would do things without first letting me know so that we could both agree on it. She would just go somewhere without letting me know, which means she did not respect her home either"*.

Women with the WS perspective explained that it was their own hard work which had brought them to where they were at the time of the FGD, and that "challenging your husband now and then" is a must to develop; *"We struggle but it pays off at the end of the day"* (woman WS). In the stories of the WS interviewees (both women), the role of men/husbands as provider and main decision-maker was strongly ingrained and did not differ much from the PiP narrative at first glance. But contrary to PiP women, they emphasized men's responsibility not only in providing, but also in supporting their wife with her activities and listening to her. By "letting" the husband lead, they argued – in other words by overtly granting him agency – a husband will take care of his wife as well. One woman (40 years old, married) explained that it was her own attitude towards her husband which made him trust her: *"Submitting to my husband enabled him to support my ideas that helped me/us develop"*. Both women emphasized the importance for (young) women to have a fallback option, such as a good education or land ownership, should they find themselves in a bad marriage.

When discussing the LoPF ratings, women differentiated between three different kinds of households with regard to levels of women's agency and their role in the household vis-à-vis their husband. The first kind described, common in 2010 but rare in 2020, concerned a household in which the woman is married and has very little agency. For the second kind of household, more common in 2020 compared to 2010, the married woman possesses moderate levels of agency. Her husband has realized that women can make meaningful contributions to the development of the home. The third kind of household is made up of either a single woman (divorced/widowed) or of a married woman whose husband has *de facto* abandoned his role and responsibilities as husband and father. She has a moderate to high level of agency but is also forced to take on men's responsibilities. Alcohol abuse is mentioned as a common factor in men's rejection of responsibilities. Our woman interviewee for TE explains for instance: *"He spends all his money on alcohol, and when he discovers I have money, he always tries to get it from me to go drink it all too. I pay school fees, I make sure my children have gone to school, I do everything. His money is for the bar, he does not cater for anything"* (39 years old, married).

3.3.2. Looking forward

We further explored seven polarizing statements from the Q-set and the gender norms which they refer to (Table 4) by asking FGD participants to reflect on likely future developments in reference to these statements. Results show that some of these statements refer to norms which are currently still dominant (S25; S2). Other statements (S1; S16) are only supported by few participants, the men of PiP, and seem archaic or outdated. Some statements refer to norms which are clearly in flux (S39; S29).

PiP participants, especially the men, generally denied or dismissed the possibility of (future) changes in gender norms which would diminish men's

Table 4. Selected Q-sort statements and ranking per group (+4 strongly agree to -4 strongly disagree). Z-scores between brackets.

Statement (numbering from original Q-set)	Q-sort scores			Sentiments looking forward
	1. PiP	2. WS	3. TE	
#1. The man of the house is responsible for the land and crop management and delegates to the family what needs to be done (Distinguishing statement for PiP)	4 (1.38)	0 (0.23)	0 (0.47)	Only PiP men expect this norm to hold in future, all others expect it to change or claim it has already changed.
#2. There is no problem with women working outside of the community (Distinguishing statement for all groups)	-2 (-1.3)	-1 (-0.38)	0 (0.51)	PiP is strongly opposed. For WS and TE opinions vary. Participants from all groups agree that for educated women, there will indeed be no problem.
#4. Women should always inform their husband about all the money they earn (Distinguishing statement for WS)	2 (1)	-1 (-0.48)	2 (0.98)	Across the groups, participants agree that also in future women will not disclose their income. Nevertheless, TE women participants do emphasize it would benefit the household if they would disclose their income.
#16. Commercial farming is not for women (Distinguishing for PiP)	3 (1.09)	-1 (-0.36)	-1 (-0.29)	Only PiP men think this will hold in future. Others claim this will change and that there are already women farming commercially.
#29. It is ideal for a woman to have her first child before the age of 18 years (Consensus statement)	-3 (-1.79)	-3 (-1.77)	-4 (-2.01)	Across the groups participants disagree with the statement but acknowledge this is happening, and do not expect it to change. PiP participants blame young women's promiscuity. WS and TE participants blame men for "luring girls in" with presents.
#25. It is acceptable for a wife to make more money than the husband (Distinguishing statement for all groups)	-4 (-2.04)	0 (0.5)	-1 (-0.58)	PiP participants consider this as a treat to marriage and reject it. WS and TE participants refer to it as a threat but also as a potential benefit to the household.
#39. A real man has many children (Distinguishing statement for all groups)	0 (0.12)	-2 (-1.38)	-1 (-1.00)	Across the groups, participants agree this idea is outdated.

position as head of the household. WS and TE participants did not only seem to experience more change already compared to PiP, but they were also more often in favour of these changes. WS participants expected women's position vis-à-vis men to improve in the future at the cost of men's position. TE participants also expected women's agency to increase but emphasized much more the joint benefits this would bring to both women and men, especially in relation to the collaborative aspect of the conjugal relation.

3.4. Characterising normative change processes

The three perspectives captured in the Q groups (Patriarchy in Practice; Women's Struggle; Towards Equality) present three distinct sets of norms. PiP reflects traditional norms grounded in patriarchy. WS and TE are less conventional sets of norms which, albeit differently, both move away from traditional patriarchal norms and offer space for women's empowerment and gender equality. All three normative sets might dwindle or ascend in prevalence in time. Current trends potentially offer a glimpse of what gender norms might entail and which will prevail in future.

In [Figure 5](#), we map our findings visually to illustrate and comprehend normative change. The figure is based on a conceptual typology which we adapted from Farnworth et al. (2020). This typology builds on Bourdieu's (1977) conceptualization of "doxa" - an unquestioned truth that exists in society and shapes people's ideas and actions at a subliminal level. We build our conceptual framework in three steps, moving from [Figure 5a](#) to [5b](#) to [5c](#).

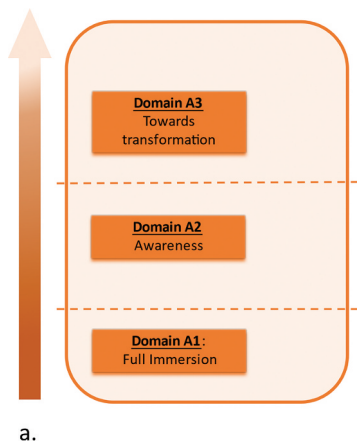


Figure 5a. Step 1 of the Analytical framework for understanding gender-normative change processes using the concept of "doxa".

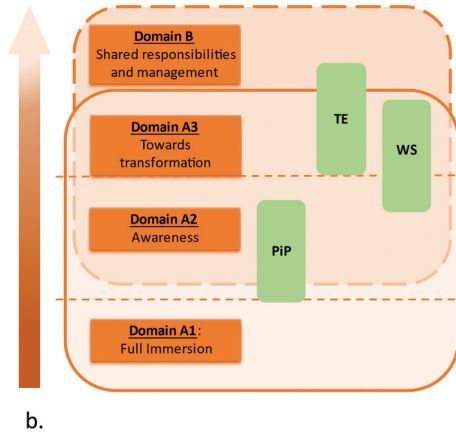


Figure 5b. Step 1 and Step 2 of the analytical framework for understanding gender-normative change processes using the concept of “doxa”.

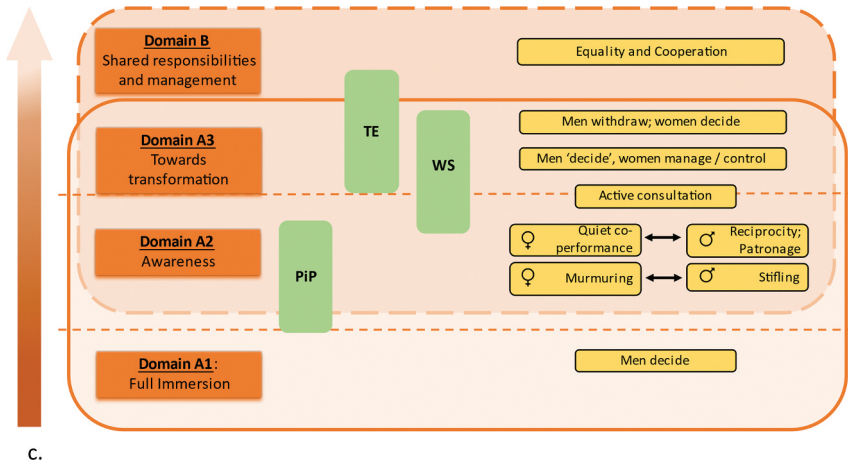


Figure 5c. Analytical framework for understanding gender-normative change processes using the concept of “doxa”. Domains A1-A3 represent different stages of change of doxa ‘patriarchy characterized by women’s limited agency’. Domain B represent a possible future doxa. The three distinct sets of norms PiP, WS and TE are mapped into the domains together with the associated behaviours as identified in the study area in terms of agency. The arrow on the left shows the direction of change over time as discerned from the data, the fading colour of the error indicating diminishing certainty of the direction as we move from past, through the present, to a (possible) future.

3.4.1. Step 1

Figure 5a shows Domain A1 to A3 with each of them depicting a different relationship to the doxa – here simply taken as patriarchy characterized by women’s limited agency – and together represent an

abstraction of a gender-normative change process. The arrow left in the figure, fading in colour going up, symbolizes the passing of time, the direction of change and the increasing uncertainty in predicting how relationships to the doxa will develop.

- Domain A1 “Full immersion” refers to a situation in which men exercise full agency and women are (very) restricted in terms of freedom and agency. Women and men are fully immersed in the doxa which they take for granted and do not question. A practice “*goes without saying because it comes without saying*” in the words of Bourdieu (1977, p. 167).
- Domain A2 “Awareness” describes an emergence into the consciousness that women as well as men can exercise agency. The doxa is weakened and people’s behaviours consequently start to change.
- Domain A3 “Towards transformation” indicates that patriarchal gender norms prescribing women’s limited agency and men’s positions of power are now challenged and, because of this, gender relations are changing. At the same time, the doxa has not disappeared, it is for instance still actively referred to in discussions about gender-appropriate behaviour. Women’s agency increases when moving up from domain A1, via A2 and A3 and patriarchal, restrictive gender norms relax.

3.4.2. Step 2

Step 2. In [Figure 5b](#), we have added two elements to [Figure 5a](#). First, we locate the three distinct sets of norms identified through Q-methodology (PiP, WS and TE) in relation to the abstract domains. The figure now provides a snapshot in time as it visualizes the nature of the three distinct sets of norms in terms of restrictiveness and relaxation at the time of data collection (Lopez et al., 2022; Petesch et al., 2018a). In our study area, none of the distinct sets of norms fits within domain A1 “Full immersion”. Many participants, whose views were grouped across different factors (sets of norms), juxtapose a past “Full immersion” to their present “Awareness”. They were conscious of the actual process whereby they began to question hitherto unquestioned norms. At time of data collection, patriarchal gender norms were thus being questioned and challenged. That is, this hitherto unquestioned belief was now being opened up for examination.

All participants, women and men alike, were therefore aware of alternative possible gender norms and associated behaviours. This is captured in domain A2 “Awareness”. We map the distinct set of norms “Patriarchy in Practice” (PiP) at the lower end of this domain. The participants adhering to PiP uphold patriarchal gender norms, but this combines with a willingness to be open-minded about some norms. For instance, PiP participants did not reject women’s increased agency as something inherently bad or wrong. Indeed, they acknowledged some benefits from this. However, they would not welcome further increases in

women's agency because they equated this with a reduction in men's agency: they had a zero-sum understanding of power.

We map "Women's Struggle" (WS) partially in A2 but mostly we locate it one step up in domain A3 "Towards Transformation". WS participants supported the relaxation of many gender norms but also warned for "excesses" such as women earning more money than their husband or (young) women becoming "promiscuous". The WS women also emphasized that their increased agency had not been obtained easily: *"Nothing is for free, you have to suffer for it first"*.

Group 3 "Towards Equality" is fully mapped onto the A3 "Towards Transformation" domain. We suggest however that the changes in this group are so profound as to potentially create a new doxa in due course, which "breaks through the wall of patriarchy" to create full gender equality (Lecoutere & Wuyts, 2021). The second element we add to Figure 5b is therefore a "new" domain, B, and TE is partially mapped there as well. Domain B "Shared responsibilities and management" represents a possible future, in which women and men are equal and free to exercise full agency.

3.4.2. Step 3

In Figure 5c we add one more element to the figure. On the right, we describe key strategies (behaviour) that women and men may adopt to try and exercise agency, or suppress agency, mapped to the different domains. Observed gendered behaviours or strategies of women and men associated with Domain A2 are:

3.4.2.1. Murmuring (women) – stifling (men). Farnworth et al. (2020, p. 20) describe women's murmuring as a form of resistance; *"a rumble of discontent"*. We associated this behaviour with a "classic" patriarchal household which used to be common in our study area but is rare nowadays. Men's response to women's murmuring is initially to stifle or ignore them.

3.4.2.2. Quiet co-performance (women) – Reciprocity/patronage (men). *"Submitting to my husband enabled him to support my ideas that helped me/us develop"*. This comment (woman interviewee, WS) illustrates well the idea of quiet co-performance; women's support to men in areas such as banana crop management, without challenging social norms (Ibid). Men's mirrored behaviour is reciprocity but to indicate this is not a "give and take" on equal footage we added "patronage". Our PiP male SSI interviewee for instance, forbade his second wife to work as a casual labourer. He explained: *"I do not want my wife to tire herself out on an employers' plantation"*. In his view, she should concentrate on their own farm, where she can decide on her own working hours. He regularly earns money as a casual labourer himself, controls all income from their farm, and feels that she has no need for income of her own.

3.4.2.3. Active consultation (women/men). Accounts of spouses discussing farm management, major household expenses and future livelihood objectives were abundant amongst participants of WS and TE. Our WS female interviewee narrated about her late husband: *“we would sit and agree what to do, and if I gave him wrong advice, he would suggest something better”*. This strategy sits right on the border between domains A2 and A3 because although women are acknowledged (as valuable) in their role and are actively consulted, men remain the main decision-maker.

Behaviours and strategies associated with domain A3 are:

3.4.2.4. Men “decide”, women manage/control. *“I was beaten back then [ten years prior] for leaving the compound. It is different now, I make my plans and just inform my husband, and go off to work or whatever else I have to do”* (FGD WS women). Women narrated how they navigate between “doing their own thing” and meanwhile securing the support of their husband in his role. They acknowledged men have the power to exert control over them and the farm, but they disapproved of husbands who take all decisions alone. *“Do you think you can be constructive in your home if you keep waiting for one person to make all the decisions?”* (FGD WS women). Especially in households with diverse livelihood activities, women tended to gain more autonomy in those activities they managed/worked in, e.g. the banana plantation or a shop, even if their husband was formally in control. By enabling him to take ultimate decisions and grant permissions, and by challenging him now and then, these women created a space in which they were relatively autonomous whilst also benefitting from their husband’s support, income and other household contributions.

3.4.2.5. Men withdraw; women decide/manage and control. *“These days, men have abandoned their roles in the home and have left all the decision making for us. Maybe we should be called men because we have taken over everything”* (FGD WS women). Accounts of marital problems and dysfunctional behaviour including domestic violence, within households – men who had *de facto* deserted their families – were common. Men’s withdrawal was most prominently mentioned in TE by both men and women and to a lesser extend in WS. Alcoholism was mentioned as a common cause or contributing factor. *“We use the land as we want because many of these men [alcohol addicts] are busy with other things, they do not even reach the gardens or plantations”*. (FGD TE women)

Although all participants were aware of normative changes, only TE participants expressed a perspective which was “beyond” patriarchy. Their future prospects explicitly broke with patriarchy. Although not fully evident yet in current behaviour, this perspective prescribed the following behaviour and strategy:

3.4.2.6. Shared responsibilities, decision-making and management (women/men). *“Work will not be delegated anymore but agreed on”* (FGD TE women). Some women and men foresee a future in which women contribute to the household financially and husbands support their wives in taking care of the children. In this perspective, both women and men can be commercial banana farmers and land belongs to the household and not to men alone.

4. Discussion

We studied gender norms and gender normative change processes through engaging with members from a rural community in Western Uganda. Our study participants, consisting of equal numbers of women and men, were diverse in terms of age, their ethnic identity, their area of birth and their wealth status (section 3.1). Using Q methodology and subsequent analysis we were able to place 70 of our 80 participants in one of three groups (factors) identified. We labelled the groups, 1) Patriarchy in Practice (PiP); 2) Women’s Struggle (WS) and 3) Toward Equality (TE). Each of these groups represents a distinct perspective. Perceptions on women’s agency present a key distinction between the groups. We found that participants’ structural characteristics “gender” and “wealth status” broadly aligned with their personal perspective on gender norms (section 3.2). Using FGDs and individual interviews, we explored respondent perspectives on gender norms and normative change processes in more detail (Section 3.3). Finally, we built an analytical framework that visualizes these distinctive sets of norms, and we postulated processes of change in these norms (Figure 5c).

4.1. Social factors correlating with Q results

Our results show that women and men differ in the ways they interpret, internalize, resist, manipulate, enact and act upon gender norms. We identified two social factors, biological gender and wealth status, that correlate with adherence to a particular set of gender norms in the given context. Many men tend – in the Q sort – to express conservative and patriarchal gender norms and they thus dominate the Patriarchy in Practice (PiP) group. We postulate that this is because men broadly experience more power and freedom than women, and – as a consequence of long held gender norms around resource ownership which privileges men, men have a vested interest in maintaining the status quo. This is all the more so when the resources and income men control are considerable.

It is therefore not surprising that Q results correlate with wealth status as well. Using “size of land under banana” and “income” as proxies for wealth, we found a negative correlation between wealth status and progressive

gender norms (by which we mean norms privileging women's agency and spousal cooperation). Average wealth was highest for participants adhering to PiP and lowest for those adhering to Towards Equality (TE) (Table 3).

Why though would poorer men support TE? Some analysts contend that "necessity" can be an important driver of gender normative change – especially for change related to economic activities (Bridges et al., 2011; Marcus, 2018; Stern et al., 2018). We recognize this in our data. For instance, in our Q results, the ranking per group on statement S7 "*a good husband accepts his wife to work on other people's farm*" alludes to this. Adherents to PiP and Women's Struggle (WS) both disagreed with this statement (−3 and −2 respectively, Figure 2), whereas adherents to TE were neutral (0). Participants' elaborations on this statement during the Q sorting indicated that PiP and WS adherents felt that the practice of married women working on other people's farm demeans the family, yet TE participants emphasized this is already common practice in the community since it is a necessary livelihood strategy. In other words, we see a shift here from wealthier households able to sustain an injunctive norm (married women should not work) to a descriptive norm among poorer households (married women do work). In turn, the very prevalence of this descriptive norm appears to be in the process of turning into a new injunctive norm (women should work) for TE respondents.

Another explanation for the reluctance expressed by men in PiP towards women increasing their agency might be found in the farming systems itself. Iversen et al. (2011) compared two sites with different farming systems in Eastern Uganda in terms of intra-household cooperation and decision-making. They found low levels of negotiation and cooperation between couples in the site dominated by cash crop production (coffee or banana) compared to the site dominated by maize/beans production. They hypothesize that some farming systems tend to support more specialized, sex-segregated gender roles (such as in banana or coffee farming) and others more gender cooperative production processes (such as in maize cultivation). In the first case, the transaction costs of negotiating and strategizing around "who does what" are avoided through not questioning gender norms that ensure strongly gendered contributions by each partner to the household. In the second case, gender norms need to be scrutinized and renegotiated – a complex and tense process which is exemplified in the "half-way house" discussions being held among the proponents of Women's Struggle. It takes time before this stage is resolved towards the practice of Towards Equality.

Such an outcome is not inevitable however. Broader injunctive gender norms – often articulated by the extension services and other development partners – which assert that men should be primary household providers and decisionmakers (Farnworth & Colverson, 2016; OECD, 2021) impact upon livestock and crop commercialisation processes (Baada et al., 2023). It is

well recognized that men may seek to take control over marketing and sales when commodities increase in value (Das et al., 2021; Laborda et al., 2023; Tavva et al., 2013). This may increase women's vulnerability and decrease their agency (Baada et al., 2023). In our study area, this could (help to) explain the differences in perspectives of groups as well, since participants adhering to both PiP and WS focus primarily on commercial banana production, and participants of PiP significantly owned and produced cattle as well. Both banana and cattle production are characterized by highly sex-segregated divisions of labour and responsibilities in Uganda and are commercial enterprises (Rietveld & Farnworth, 2018). For TE, annual crop farming and the provision of casual farm labour was relatively more important than for PiP and WS. Future research could explore in more detail relationships between gender norms, gender normative change and the nature of farming systems to shed more light on the potential of certain agricultural change processes (e.g. commercialisation of a certain crop) to contribute to gender equality.

4.2. Gender normative change

We build an Analytical Framework for understanding gender-normative change processes (Figure 5c). We suggest that this framework can provide a structure for analysing normative change processes in relation to gender norms in other contexts as well. We further suggest that the existence of plural sets of gender norms within one community might be a mechanism for driving gender normative change because they allow doxa to emerge and to be questioned. In our discussion regarding structural characteristics in relation to the identified groups above we find that "economic necessity" and the nature of the farm system might drive normative change as well.

Another commonly identified driver of change for which we also find evidence in our study is "education" (Evans, 2014; Galié et al., 2019; GENNOVATE RTB-HT team, 2017; Marcus & Harper, 2015; Muñoz-Boudot et al., 2012). When "looking back" (section 3.3.1), formal education and government sensitization programmes are mentioned to have contributed to raising participants' awareness on power, freedom and gender equality. Further on education, we find that women's education, and specifically completing (higher) formal education, seems to set them apart from other women (Lesorogol, 2008) in the sense that some gender norms are perceived as not applying to them anymore. This was shown for instance by the discussion around the statement "There is no problem with women working outside of the community" (Table 4.). Only for educated women this was truly no problem. We hypothesize that this discrepancy may be added to the various mechanisms discussed for driving normative change. We draw support for this from Paluck and Ball (2010) who argue that when individuals'

private attitudes diverge from prevailing group norms this is fertile ground for normative change.

What are the implications of these findings for gender norms theory such as the concept of Local Normative Climate? Rather than speaking of a prevailing set of gender norms in a community, which then defines the Local Normative Climate, we speak about sets of norms which apply to social groups with specific characteristics. Our findings underline the importance of studying gender norms *in situ*. In our case, this has allowed us to identify – using an emergent process – three sets of gender norms which are in dialogue with each other yet which each retain a distinctive character. We demonstrate that these three sets of norms are likely to arise from different intersectionalities in terms of wealth and other factors which are very real to the people experiencing these intersectionalities in their communities. And in turn, these different experiences contribute towards different attitudes and behaviours in relation to women’s agency and gender equality.

Our research methodology has demonstrated its value in the study of gender transformative changes processes which are already happening in a community. Recognizing the diversity and dynamics of gender norms in a given place opens up opportunities for gender transformative interventions and development which latch onto ongoing processes, including in relation to government and development partner strategizing and policy development. Our approach enables research, development and government professionals to make better sense of household heterogeneity and to design tailored interventions, approaches and policies for social change accordingly.

4.3. Methodological considerations

Using Q-methodology to understand the diversity of individuals’ perceptions of gender norms through clustering was, to our best knowledge, a new type of application. Q-methodology enabled us to group like-minded individuals using an emic approach (Fairweather & Klonsky, 2009). Kuivanen et al. (2016) discussed the virtue of “emic” approaches and the importance of farmers’ participation and self-classification in the systematic assessment of farmers’ heterogeneity, but they also pointed out the common criticism that these approaches lack scientific rigour (Vanclay et al., 2006). Q-methodology can circumvent such criticism, be it justified or not, by bringing “quantitative weight” to what is essentially qualitative research (Nordhagen et al., 2017; Zabala, 2014).

Q-methodology offers new opportunities for gender-focused research and for Monitoring and Evaluation in development projects more broadly, by enabling the grouping of like-minded individuals, which can facilitate tailored interventions and approaches for social change. As such, Q-Methodology,

and especially its application embedded in a sequential mixed-methods approach, can be considered a “gender-transformative research methodology” defined as a method which enables the conduct of “*deep, intersectional gender analyses to understand the context and the multiple dimensions and layers of inequality and power*” (Lopez et al., 2023; Njuki et al., 2022). As was shown in our results, analysing the Q-based grouping in conjunction with structural characteristics of the participants within the groups has the potential to reveal if there are structural and intersecting characteristics which might be correlated with specific perspectives or explain these to some degree. Using Q-methodology in a similar way as we did, does require the availability of locally situated prior data and/or local expert knowledge on gender norms to create the q-concourse of statements.

Disaggregating individual survey or interview data for sex of the respondent is often considered as the absolute minimum in the agricultural development sciences when it comes to conducting gender-sensitive or gender-responsive research (Doss & Kieran, 2014; Kawarazuka et al., 2020). Yet in the analysis of the Q-results we present in this paper, the Q-sorts were not sex-disaggregated. Albeit not presented in this paper, we did conduct a sex-disaggregated analysis of the Q-sorts by treating the male and female sample as two distinct datasets. Analysis yielded two factors each for the male and the female Q result sets. The narratives we built around these two-time two single-sex factors did not have an added value over the analysis of the complete Q-sort and therefore we discarded them. Sex-disaggregated analysis of Q-sorts might make sense in other studies however and we recommend future users of Q-methodology to further explore this.

5. Conclusion

This study utilized several methods combined to make sense of the diversity of perspectives on gender norms within a farming community in Western Uganda. Our analysis using Q-methodology yielded three groups representing distinct sets of gender norms: “Patriarchy in practice” (PiP), “Women’s struggle” (WS) and ‘Towards Equality (TE). These three sets of norms represent different currents in the normative climate of our study area with PiP most strongly upholding patriarchal gender norms. A clear pattern emerged in the analysis of the Q-sorts in conjunction with the survey data showing that perspectives on gender norms were aligned with the gender and wealth status of the participants.

Our analytical framework illustrates and supports comprehension of normative change in communities. It visualizes the co-existence of multiple sets of norms and how women and men deploy their agency to work with these in their own interests in a particular community. Identifying

distinct sets of norms and their interplay enlarged our understanding of normative change (trends) in our research site and we deem it plausible that this will hold when applying the analytical framework in other contexts as well. As such, we provide entry-points and direction to development practitioners and policymakers aiming to develop gender transformative interventions and policies, tailored to the needs of diverse groups of women and men within communities, to ultimately promote gender equality.

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References

- Acosta, M. (2020). 'Doing gender': impacts of local meaning making on gender mainstreaming in agricultural and climate change policy in Uganda. [internal PhD, WU, Wageningen University]. Wageningen University. <https://doi.org/10.18174/524726>
- Acosta, M., van Bommel, S., van Wessel, M., Ampaire, E. L., Jassogne, L., & Feindt, P. H. (2019). Discursive translations of gender mainstreaming norms: The case of agricultural and climate change policies in Uganda. *Women's Studies International Forum*, 74, 9–19. <https://doi.org/10.1016/j.wsif.2019.02.010>

- Acosta, M., van Wessel, M., van Bommel, S., Ampaire, E. L., Twyman, J., Jassogne, L., & Feindt, P. H. (2019). What does it mean to make a 'joint' decision? Unpacking intra-household decision making in agriculture: Implications for policy and practice. *The Journal of Development Studies*, 56(6), 1210–1229. <https://doi.org/10.1080/00220388.2019.1650169>
- Agarwal, B. (1994). *A field of one's own: Gender and land rights in South Asia*. Cambridge University Press.
- Aho, K. (2003). Why Heidegger is not an existentialist: Interpreting authenticity and historicity in being and time. *Florida Philosophical Review*, III(2). https://cah.ucf.edu/fpr/wp-content/uploads/sites/3/2019/09/FPR-3_2-9.pdf
- Alvarez, S., Timler, C. J., Michalscheck, M., Paas, W., Descheemaeker, K., Tittonell, P., Andersson, J. A., Groot, J. C. J., & Puebla, I. (2018). Capturing farm diversity with hypothesis-based typologies: An innovative methodological framework for farming system typology development. *PLOS ONE*, 13(5), e0194757. <https://doi.org/10.1371/journal.pone.0194757>
- Ambler, K., Doss, C., Kieran, C., & Passarelli, S. (2017). He says, she says: Exploring patterns of spousal agreement in Bangladesh. IFPRI Discussion Paper 01616. IFPRI.
- Ardener, E. (1972). 'belief and the problem of women. In J. L. Fontaine (Ed.), *The interpretation of ritual* (p. 24). Tavistock. <https://doi.org/10.4324/9780203715185>
- Aregu, L., Choudhury, A., Rajaratnam, S., van der Burg, M., & McDougall, C. (2019). Implications of agricultural innovation on gender norms. In C. E. Sachs (Ed.), *Gender, agriculture and agrarian transformations*. (p. 17). Routledge.
- Baada, J. N., Najjar, D., & Seifu, M. H. (2023). Can a cash crop be a women's crop? Examining gender norms, relations and equity around lentil commercialization in Ethiopia. *Scientific African*, 21, e01862. <https://doi.org/10.1016/j.sciaf.2023.e01862>
- Bernard, T., Doss, C., Hidrobo, M., Hoel, J., & Kieran, C. (2020). Ask me why: Patterns of intrahousehold decision-making. *World Development*, 125, 104671. <https://doi.org/10.1016/j.worlddev.2019.104671>
- Bicchieri, C., Ryan, M., & Alessandro, S. (2018). Social norms. In E. D. Zalta (Ed.), *The stanford encyclopedia of philosophy* (Winter 2018 Edition). <https://plato.stanford.edu/archives/win2018/entries/social-norms>
- Bourdieu, P. (1977). *Outline of a theory of Practice. Volume 16. Cambridge Studies in social and cultural anthropology*. Cambridge University Press.
- Braber den, B., Ven van de, G., Ronner, E., Marinus, W., Languillaume, A., Ochola, D., Taulya, G., Giller, K. E., & Descheemaeker, K. (2021). Manure matters: Prospects for regional banana-livestock integration for sustainable intensification in South-West Uganda. *International Journal of Agricultural Sustainability*, 20, 821–843. <https://doi.org/10.1080/14735903.2021.1988478>
- Bridges, S., Lawson, D., & Begum, S. (2011). Labour market outcomes in Bangladesh: The role of poverty and gender norms. *European Journal of Development Research*, 23(3), 459–487. <https://doi.org/10.1057/ejdr.2011.14>
- Christopherson, K., Yíadom, A., Johnson, J., Fernando, F., Yazid, H., & Thiemann, C. (2022). Tackling legal impediments to women's economic empowerment.
- Cislaghi, B., & Heise, L. (2020). Gender norms and social norms: Differences, similarities and why they matter in prevention science. *Sociology of Health and Illness*, 42, 407–422. <https://doi.org/10.1111/1467-9566.13008>
- Das, S., Delavallade, C., Fashogbon, A., Ogunleye, W., & Papineni, S. (2021). Occupational sex segregation in agriculture: Evidence on gender norms and socio-emotional skills in Nigeria. Policy Research Working Paper; No. 9695. World Bank, <https://openknowledge.worldbank.org/handle/10986/35765>

- Doss, C., & Kieran, C. (2014). *Standards for collecting sex-disaggregated data for gender analysis: A Guide for CGIAR researchers*. CGIAR Gender and Agriculture Research Network.
- Evans, A. (2014). Co-education and the erosion of gender stereotypes in the Zambian Copperbelt. *Gender & Development*, 22(1), 75–90. <https://doi.org/10.1080/13552074.2014.889346>
- Exel van, J., & De Graaf, G. (. 2005). Q-methodology: A Sneak preview. www.jobvanexel.nl
- Fairweather, J. R., & Klonsky, K. (2009). Response to vanclay *et al.* on farming styles: Q methodology for identifying styles and its relevance to extension. *Sociologia Ruralis*, 49, 189–198. <https://doi.org/10.1111/j.1467-9523.2009.00482.x>
- FAO. (2022). *National gender profile of agriculture and rural livelihoods – Uganda. Country gender assessment series* (2nd ed.). Kampala FAO.
- Farnworth, C. R., & Colverson, K. (2016). Building a gender-transformative extension and advisory facilitation system in sub-Saharan Africa. *Journal of Gender, Agriculture & Food Security*. <https://doi.org/10.19268/JGAFS.112015.2>
- Farnworth, C. R., Hà, T. T., Sander, B. O., Wollenberg, E., de Haan, N. C., & McGuire, S. (2017). Incorporating gender into low-emission development: A case study from Vietnam. *Gender, Technology and Development*, 21, 1-2, 5–30. <https://doi.org/10.1080/09718524.2017.1385314>
- Farnworth, C. R., Jafry, T., Bharati, P., Badstue, L., & Yadav, A. (2020). From working in the fields to taking control. Towards a typology of women’s decision-making in wheat in India. *European Journal of Development Research*, 33, 526–552. <https://doi.org/10.1057/s41287-020-00281-0>
- Farnworth, C. R., López, D. E., Badstue, L., Hailemariam, M., & Abeyo, B. G. (2019). Gender and agricultural innovation in Oromia region, Ethiopia: from innovator to tempered radical. *Gender, Technology and Development*, 22, 222–245. <https://doi.org/10.1080/09718524.2018.1557315>
- Ferrant, G. (2015). How do gender inequalities hinder development? cross-country evidence. *Annals of Economics and Statistics*, 117(118), 313–352. <https://doi.org/10.15609/annaeconstat2009.117-118.313>
- Field, E., Pande, R., Rigol, N., Schaner, S., & Moore, C. T. (2021). On her own account: How strengthening women’s financial control impacts labor supply and gender norms. *The American Economic Review*, 111(7), 2342–2375. <https://doi.org/10.1257/aer.20200705>
- Gachuri, A., Paez-Valencia, A. M., Elias, M., Carsan, S., & McMullin, S. (2022). Gender and generational differences in local knowledge and preference for Food trees in central Uganda and Eastern Kenya. *Frontiers in Sustainable Food Systems*, 5, 746256. <https://doi.org/10.3389/fsufs.2021.746256>
- Galié, A., Teufel, N., Girard, A. W., Baltenweck, I., Dominguez-Salas, P., Price, M. J., Jones, R., Lukuyu, B., Korir, L., Raskind, I. G., Smith, K., & Yount, K. M. (2019). Women’s empowerment, food security and nutrition of pastoral communities in Tanzania. *Global Food Security*, 23, 125–134. <https://doi.org/10.1016/j.gfs.2019.04.005>
- GENNOVATE RTB-HT team. (2017). Gender in agricultural change: Towards more inclusive innovation in farming communities. GENNOVATE report to the CGIAR research Programs on roots, tubers and bananas and Humidtropics. GENNOVATE Research Paper,
- Haas de, M., & Frankema, E. (2018). Gender, ethnicity, and unequal opportunity in colonial Uganda: European influences, African realities, and the pitfalls of parish register data. *The Economic History Review*, 71(3), 965–994.

- Harper, C., & Marcus, R. (2018). What can a focus on gender norms contribute to girls' empowerment? In C. Harper, N. Jones, A. Ghimire, R. Marcus, & G. K. Bantebya (Eds.), *Empowering adolescent girls in developing countries* (pp. 22–40). Routledge. <https://doi.org/10.4324/9781315180250>
- Harper, C., Marcus, R., George, R., D'Angelo, S., & Samman, E. (2020). *Gender, power and progress: How norms change*. ALIGN/ODI www.alignplatform.org/gender-power-progress.
- Idris, I. (2018) Barriers to Women's Economic Inclusion in Tanzania, K4D Helpdesk Report. Institute of Development Studies. https://assets.publishing.service.gov.uk/media/5b432d9e40f0b678bc5d01c1/Barriers_to_womens_economic_inclusion_in_Tanzania.pdf
- Iversen, V., Jackson, C., Kebede, B., Munro, A., & Verschoor, A. (2011). Do spouses realise cooperative gains? Experimental evidence from rural Uganda. *World Development*, 39(4), 569–578. <https://doi.org/10.1016/j.worlddev.2010.09.011>
- Johnson, T. P. (2014). Snowball sampling: Introduction. In N. Balakrishnan, T. Colton, B. Everitt, W. Piegorisch, F. Ruggeri, & J. L. Teugels (Eds.), *Wiley StatsRef: Statistics reference online*. <https://doi.org/10.1002/9781118445112.stat05720>
- Kawarazuka, N., Damtew, E., Mayanja, S., Okonya, J. S., Rietveld, A. M., Slavchevska, V., & Teeken, B. (2020). *Considering gender in pest and disease management: FAQs for gender-responsive data collection and extension work*. International Potato Center.
- Kuivanen, K. S., Alvarez, S., Michalscheck, M., Adjei-Nsiah, S., Descheemaeker, K., Mellon-Bedi, S., & Groot, J. C. J. (2016). Characterizing the diversity of smallholder farming systems and their constraints and opportunities for innovation: A case study from the northern region, Ghana. *NJAS: Wageningen Journal of Life Sciences*, 78, 153–166. <https://doi.org/10.1016/j.njas.2016.04.003>
- Kuivanen, K. S., Michalscheck, M., Descheemaeker, K., Adjei-Nsiah, S., Mellon-Bedi, S., Groot, J. C. J., & Alvarez, S. (2016). A comparison of statistical and participatory clustering of smallholder farming systems – a case study in northern Ghana. *Journal of Rural Studies*, 45, 184–198. <https://doi.org/10.1016/j.jrurstud.2016.03.015>
- Laborda, L., Easdale, M. H., Fallot, A., Ocariz, M. P., & Tittonell, P. A. (2023). Rise from the ashes! Resilience patterns in Patagonia pastoralist communities. *Sustainable Development*. <https://doi.org/10.1002/sd.2679>
- Lecoutere, E., & Wuyts, E. (2021). Confronting the wall of patriarchy: Does participatory intrahousehold decision making empower women in agricultural households? *The Journal of Development Studies*, 57(6), 882–905. <https://doi.org/10.1080/00220388.2020.1849620>
- Leigh Anderson, C., Reynolds, T. W., Biscaye, P., Patwardhan, V., & Schmidt, C. (2021). Economic benefits of empowering women in agriculture: Assumptions and evidence. *The Journal of Development Studies*, 57(2), 193–208. <https://doi.org/10.1080/00220388.2020.1769071>
- Lesorogol, C. K. (2008). Setting themselves apart: Education, Capabilities, and sexuality among samburu women in Kenya. *Anthropological Quarterly*, 81(3), 551–577. <https://doi.org/10.1353/anq.0.0020>
- Long, A., & van der Ploeg, J. D. (1994). Endogeneous development: Practices and perspectives. In J. D. van der Ploeg & A. Long (Eds.), *Born from within. Practice and perspective of endogenous rural development*. Van Gorcum. <https://edepot.wur.nl/358326>
- Lopez, D. E., Bailey, A., Farnworth, C. R., Rietveld, A., & Gartaula, H. (2023). Designing for change through “reflecting and doing”: The CGIAR community of Practice on gender-transformative research Methodologies. *Frontiers in Sustainable Food*

- Systems - Social Movements, Institutions and Governance*, 7. <https://doi.org/10.3389/fsufs.2023.1179503>
- Lopez, D. E., Frelat, R., Badstue, L. B., & Reassignment, P. M. (2022). Towards gender-inclusive innovation: Assessing local conditions for agricultural targeting. *PLoS ONE*, 17(3), e0263771. <https://doi.org/10.1371/journal.pone.0263771>
- Marcus, R. (2018). *The norms factor: Recent research on gender, social norms, and women's economic empowerment*. Overseas Development Institute, International Development Research Centre URI. <http://hdl.handle.net/10625/57285>
- Marcus, R., & Harper, C. (2015). *Social norms, gender norms, and adolescent girls: A brief Guide*. ODI. <http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinionfiles/9818.pdf>
- Michalscheck, M., Groot, J. C. J., Fischer, G., & Tittonell, P. (2020). Land use decisions: By whom and to whose benefit? A serious game to uncover dynamics in farm land allocation at household level in Northern Ghana. *Land Use Policy*, 91, 104325. <https://doi.org/10.1016/j.landusepol.2019.104325>
- Mugisha, J., Sebatta, C., Mausch, K., Ahikiriza, E., Kalule Okello, D., & Njuguna, E. M. (2019). Bridging the gap: Decomposing sources of gender yield gaps in Uganda groundnut production. *Gender, Technology and Development*, 23, 19–35. <https://doi.org/10.1080/09718524.2019.1621597>
- Muñoz-Boudot, A. M., Petesch, P., & Turk, C., with Thumala, A. (2012). *On norms and agency. Conversations with women and men about gender equality in 20 countries*. World Bank.
- Njuki, J., Eissler, S., Malapit, H., Meinzen-Dick, R., Bryan, E., & Quisumbing, A. (2022). A Review of evidence on gender equality, women's empowerment, and Food systems. *Global Food Security*, 33, 100622. <https://doi.org/10.1016/j.gfs.2022.100622>
- Nordhagen, S., Pascual, U., & Drucker, A. G. (2017). Feeding the household, growing the business, or just showing off? farmers' motivations for crop diversity choices in Papua New Guinea. *Ecological Economics*, 137, 99–109. <https://doi.org/10.1016/j.ecolecon.2017.02.025>
- Nordhagen, S., Pascual, U., & Drucker, A. G. (2021). Gendered differences in crop diversity choices: A case study from Papua New Guinea. *World Development*, 137, 105134. <https://doi.org/10.1016/j.worlddev.2020.105134>
- Ochola, D., Boekelo, B., van de Ven, G. W. J., Taulya, G., Kubiriba, J., van Asten, P. J. A., Giller, K. E., & Chemura, A. (2022). Mapping spatial distribution and geographic shifts of east African highland banana (*Musa* spp.) in Uganda. *PLoS One*, 17, e0263439. <https://doi.org/10.1371/journal.pone.0263439>
- OECD. (2021). *Man enough? Measuring masculine norms to promote women's empowerment, social institutions and gender index, the Organization for economic cooperation and development (OECD)*. Publishing. <https://doi.org/10.1787/6ffd1936-en>
- Paluck, E. L., & Ball, E., with Poynton, C. & Siedloff, S. (2010) 'Social norms marketing aimed at gender-based violence: A literature Review and critical assessment'. IRC. Available at <http://bit.ly/1qQqy3w>
- Petes, P. (2022) Gender norms, agency, and trajectories of social change and development in agricultural communities. PhD thesis. Wageningen University. <https://doi.org/10.18174/569163>
- Petes, P., & Badstue, L. (2020). Gender norms and poverty dynamics in 32 villages of South Asia. *International Journal of Community Well-Being*, 3, 289–310. <https://doi.org/10.1007/s42413-019-00047-5>
- Petes, P., Badstue, L., Camfield, L., Feldman, S., Prain, G., & Kantor, P. (2018c). Qualitative, comparative and collaborative research at large scale: The

- GENNOVATE field methodology. *Journal of Gender, Agriculture & Food Security*, 3(1), 28–53. <https://doi.org/10.19268/JGAFS.312018.1>
- Petes, P., & Bullock, R. (2018). *Ladder of power and freedom: A qualitative data collection tool to understand local perceptions of agency and decision-making. GENNOVATE resources for scientists and research teams*. CIMMYT.
- Petes, P., Bullock, R., Feldman, S., Badstue, L., Rietveld, A., Bauchspies, W., Kamanzi, A., Tegbaru, A., & Yila, J. (2018a). Local normative climates shaping agency and agricultural livelihoods in sub-Saharan Africa, GENNOVATE special issue. *Journal of Gender, Agriculture & Food Security*, 3(1), 108–130. <https://doi.org/10.19268/JGAFS.312018.5>
- Petes, P., Feldman, S., Elias, M., Badstue, L., Najjar, D., Rietveld, A., Bullock, R., Kawarazuka, N., & Luis, J. (2018b). Community typology framed by normative climate for agricultural innovation, empowerment, and poverty reduction, GENNOVATE special issue. *Journal of Gender, Agriculture & Food Security*, 3(1), 131–157.
- Pinillos, D., Pocard-Chapuis, R., Bianchi, F. J. J. A., Corbeels, M., Timler, C. J., Tittonell, P., Ballester, M. V. R., & Schulte, R. P. (2021). Landholders' perceptions on legal reserves and agricultural intensification: Diversity and implications for forest conservation in the eastern Brazilian Amazon. *Forest Policy and Economics*, 129, 102504. <https://doi.org/10.1016/j.forpol.2021.102504>
- Rao, N. (2012). Breadwinners and homemakers: Migration and changing conjugal expectations in rural Bangladesh. *The Journal of Development Studies*, 48(1), 26–40. <https://doi.org/10.1080/00220388.2011.629648>
- Rietveld, A., & Farnworth, C. R. (2018). *Towards gender-responsive banana research for development in the East-African Highlands. GENNOVATE resources for scientists and research teams*. CIMMYT.
- Rietveld, A. M., Groot, J. C. J., & Van der Burg, M. (2021). Predictable patterns of unsustainable intensification. *International Journal of Agricultural Sustainability*, 20, 461–477. <https://doi.org/10.1080/14735903.2021.1940731>
- Rietveld, A. M., & Van der Burg, M. (2021). Separate and joint interests: Understanding gendered innovation processes in Ugandan farm systems. *Frontiers in Sustainable Food Systems*, 5, 666051. <https://doi.org/10.3389/fsufs.2021.666051>
- Ronner, E., van de Ven, G. J., Nowakunda, K., Tugumisirize, J., Kayiita, J., Taulya, G., Uckert, G., & Descheemaeker, K. K. E. (2023). What future for banana-based farming systems in Uganda? A participatory scenario analysis. *Agricultural Systems*, 209, 103669. <https://doi.org/10.1016/j.agry.2023.103669>
- Sen, A. (1990). Gender and cooperative conflicts. In Tinker, I. (Ed.), *Persistent inequalities* (pp. 123–148). Oxford University Press.
- Sen, A. (1993). Capability and well-being. In Nussbaum & Sen (Eds.), *The quality of life* (pp. 30–53). Clarendon Press.
- Stephenson, W. (1953). *The study of Behavior; Q-Technique and its methodology*. University of Chicago Press.
- Stern, E., Heise, L., & McLean, L. (2018). The doing and undoing of male household decision-making and economic authority in Rwanda and its implications for gender transformative programming. *Culture, Health & Sexuality*, 20(9), 976–991. <https://doi.org/10.1080/13691058.2017.1404642>
- Stewart, F. Capabilities and human development: Beyond the individual - the critical role of social institutions and social competencies (July 8, 2013). UNDP-HDRO Occasional Papers No. 2013/03, Available at SSRN: <https://ssrn.com/abstract=2344469>

- Sumberg, J., Yeboah, T., Flynn, J., & Anyidoho, N. A. (2017). Young people's perspectives on farming in Ghana: A Q study. *Food Security*, 9(1), 151–161. <https://doi.org/10.1007/s12571-016-0646-y>
- Tavva, S., Martini, M., Aw-Hassan, A., Rischkowsky, B., Tibbo, M., & Rizvi, J. (2013). Gender roles in agriculture: The case of Afghanistan. *Indian Journal of Gender Studies*, 20, 111–134. <https://doi.org/10.1177/0971521512465939>
- Timler, C. J., Groot, J. C. J., Snapp, S. S., & Tiftonell, P. A. (2023). Strategies steering intensification pathways of farmers in Central Malawi. *Human Ecology*, 51, 455–469. <https://doi.org/10.1007/s10745-023-00413-0>
- Tripp, A. M. (2004). Women's movements, customary law and land rights in Africa: The case of Uganda. *African Studies Quarterly*, 7(4), 1–19.
- Vanclay, F., Howden, P., Mesiti, L., & Glyde, S. (2006). The social and Intellectual Construction of farming styles: Testing Dutch ideas in Australian agriculture. *Sociologia Ruralis*, 46, 61–82. <https://doi.org/10.1111/j.1467-9523.2006.00404.x>
- Verkaart, S., Mausch, K., & Harris, D. (2018). Who are those people we call farmers? Rural Kenyan aspirations and realities. *Development in Practice*, 28(4), 468–479. <https://doi.org/10.1080/09614524.2018.1446909>
- Walder, P., & Kantelhardt, J. (2018). The Environmental behaviour of farmers – capturing the diversity of perspectives with a Q methodological approach. *Ecological Economics*, 143, 55–63. <https://doi.org/10.1016/j.ecolecon.2017.06.018>
- Watts, S., & Stenner, P. (2005). The subjective experience of partnership love: A Q methodological study. *British Journal of Social Psychology*, 44(Pt 1), 85–107.
- Were, M., Odongo, M., & Israel, C. (2021). Gender disparities in financial inclusion in Tanzania WIDER working paper series wp-2021-97, World Institute for Development Economic Research (UNU-WIDER).
- Wichern, J., Descheemaeker, K., Giller, K. E., Ebanyat, P., Taulya, G., & van Wijk, M. T. (2019). Vulnerability and adaptation options to climate change for rural livelihoods – a country-wide analysis for Uganda. *Agricultural Systems*, 176, 102663.
- World Bank. 2012. World development report 2012: Gender equality and development. © World Bank. <http://hdl.handle.net/10986/4391>
- Zabala, A. (2014). Qmethod: A package to explore human perspectives using Q methodology. *The R Journal*, 6(2), 163–173. <http://journal.r-project.org/archive/2014-2/zabala.pdf>
- Zadawa, A. N., & Omran, A. (2020). Rural development in Africa: Challenges and opportunities. In Omran, A. & Schwarz-Herion, O. (Eds.), *Sustaining our environment for better future*. Springer. https://doi.org/10.1007/978-981-13-7158-5_3