

Relational Body Image: Developing an Understanding of How and Why Body Image Changes

Across Specific Relationships

by

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Examining Committee Membership

The following served on the Examining Committee for this thesis. The decision of the Examining Committee is by majority vote.

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Author's Declaration

This thesis consists of material all of which I authored or co-authored: see Statement of Contributions included in the thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

Statement of Contributions

Sydney Waring was the sole author for the general introduction and general discussion, which were written under the supervision of Dr. Allison Kelly and have not been submitted for publication.

This thesis consists in part of three manuscripts written for publication. Exceptions to sole authorship of material are as follows:

Research presented in Study 1:

This research was conducted at the University of Waterloo by Sydney Waring under the supervision of Dr. Allison Kelly. Both researchers contributed to conceptualization, methodology, reviewing, and editing. Sydney Waring conducted the project administration, research investigation, data collection, data curation, analyses, visualization, and writing of the initial draft. Dr. Allison Kelly contributed resources and supervision. Both co-authors contributed intellectual input.

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Research presented in Study 2:

This research was conducted at the University of Waterloo by Sydney Waring under the supervision of Dr. Allison Kelly in collaboration with Konstantyn Sharpinskyi. All researchers contributed to reviewing and editing. Sydney Waring contributed to conceptualization,

methodology, and analysis; provided funding acquisition; and conducted the project administration, research investigation, data collection, data curation, and writing of the initial draft. Konstantyn Sharpinski conducted the formal analysis and visualization. Dr. Allison Kelly contributed to conceptualization, methodology, resources, supervision, and aided in funding acquisition. All co-authors contributed intellectual input.

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As lead author of these three studies, I (Sydney Waring) was responsible for conceptualizing, study design, carrying out data collection and analysis, and drafting manuscripts. My co-authors

provided guidance and input during each step of the research and provided feedback on draft manuscripts.

Abstract

Studies show that social relationships strongly influence body image and that an individual's body image changes with social-contextual factors. Nevertheless, research has conceptualized and measured body image as an internal, intrapersonal concept even though, in social psychological research, there is a strong tradition of viewing the self and self-related attitudes as interpersonally-based. In my program of research, I suggest that these social psychological perspectives may be relevant to our understanding of body image. Drawing on this work, I developed a novel, relational conceptualization of body image. I coined the term *relational body image* to indicate that an individual may experience changes in their body image across their close relationships based on the perceived characteristics of the other person. My primary research objective was to obtain empirical support for the existence of relational body image. A secondary objective was to expand and deepen my conceptualization of relational body image using a diverse range of theories and methods relevant to the study of relationships. My program of research consisted of three studies with cis-gendered college women. In Study 1, I devised a way to measure relational body image by incorporating egocentric network methods and adapting existing trait body image-related measures into relationship-specific measures. Using these methods, 87 women generated a list of people in their social networks and 10 close others were randomly selected. Participants then provided ratings of their body image and eating behaviours with each of their 10 others and reported on the body image-related characteristics of those people. Multilevel modelling provided initial support for relational body image, demonstrating that a given woman's body image fluctuated across her relationships and was predicted by the other person's perceived characteristics. In Study 2, I explored individual differences in relational body image and tested the hypothesis that women who are more body-

dissatisfied would experience more extreme changes in their overall body image levels across their relationships. In a sample of 189 women, results from multiverse analysis supported this hypothesis. Findings thus pointed to the particular relevance of relational body image for body-dissatisfied women. In Study 3, I aimed to further enhance my conceptualization of relational body image by exploring the subjective experiences of body-dissatisfied women. In a one-to-one interview, 18 women rated their body image with seven close others. A graph depicting each woman's personal body image with their seven others was created and used to prompt discussion about their subjective experiences of relational body image. Reflexive thematic analysis identified one overarching theme, which suggested that relational body image is made up of a complex configuration of different factors within a specific relationship. Three subthemes indicated that these different factors: give rise to a general expectation for how the other person will view one's body; are constantly in-flux; and differ in how much power they exert on the individual. Study 3 thus added novel methodological support and further theoretical nuance to my conceptualization of relational body image. Overall, my program of research was successful in integrating a wide range of theories and methods to provide empirical support for relational body image. Potential applications are widespread. Indeed, results suggest there may be merit in assessing, preventing, and treating body-image related concerns with a focus on specific relationships. In addition, my program of research provides a framework for how to derive and test novel concepts within body image research. In particular, the current program highlights the downstream empirical benefits of conducting research that is strongly and broadly theory-driven and investigated through diverse methodologies. Research on relational body image thus has applied, theoretical, and methodological implications.

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The importance of my relationships to my life has always felt intuitive but the process of completing graduate school has made it even more apparent. When I think of what has gotten me to this point, my most parsimonious response is my relationships. My relationships were not only a source of support. I truly believe that the many different ideas, feelings, and actions that went into this program of research were derived with and from the people in my life.

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Literature Review and General Introduction

The Importance of History: Looking Back at Body Image

It is easy to overlook the winding road that has led to contemporary conceptualizations of body image. Within psychological research, ideal conceptual development is driven by empiricism (Toomela, 2014). The different understandings of a concept are tested, and then scientific results can differentiate between ideas that deserve further investigation, ideas that need updating, and ideas that should be discarded. In practice, however; feasibility, personal interest, current zeitgeist, and many other factors muddy the waters of empirical discovery and shape the way research progresses and contemporary understandings develop. Re-examining the historical development of the body image concept thus provides a unique and important opportunity. As time passes, the muddy water clears. With hindsight, it becomes easier to distinguish between those ideas that sunk to the bottom of empirical focus for legitimate reasons and those that sunk only because they got swept up in the mud. These latter ideas contain untapped potential and wait to be re-discovered.

The “Birth” of Body Image: A Contextualized and Interconnected Phenomenon

Neurological work in the early 1900s characterized the first era of body image-related research. Neurologists investigating the relationship between brain injuries and perceptual abnormalities such as “phantom limbs” realized that there was a difference between the physical reality of the body and perception of it (Cash & Smolak, 2011). From this research came the concept of a body schema: the largely unconscious perceptual model of the body that the brain forms through integrating sensory information (Morasso et al., 2015). Body schema offered a physiological concept through which to understand body perception and laid the groundwork for the later concept of body image.

In the 1930s, psychiatrist Paul Schilder was the first person to use the term body image, which he defined as “a picture of our own body which we form in our mind” (1930/1950, p.1). Schilder’s concept of body image built upon the idea of a body schema, but it offered a novel perspective. He argued that the representation of the body in the mind was more than just the perception of sensory information, stating, “...we do not merely act as a perceptive apparatus. There is always a personality that experiences the perception” (Schilder, 1935/1950, pg. 15). Schilder’s conceptualization of body image was thus unique because it moved beyond the purely physiological. He saw body image as also including personality, that is, one’s conscious inner experiences, and Schilder broadened the understanding of body image even further by arguing that one’s personality could never be understood outside of actual lived experiences.

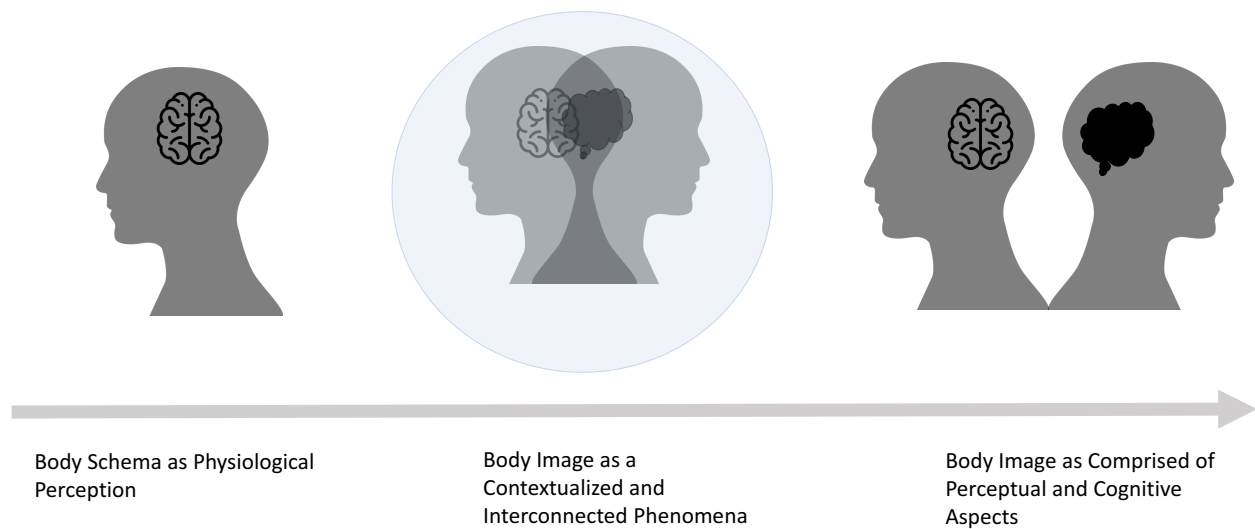
Schilder (1935/1950) thus argued that body image had to be understood within the contexts of physiology, psychology, and sociology. Importantly, Schilder saw these contexts as being interconnected. That is, he did not see them as stable and distinct aspects of body image but rather as emergent parts of a dynamic whole, stating “Is the...model of the body a fixed static entity, or is it a changing, growing, and developing one? I hope to show that the... model of the body is in perpetual inner self-construction and self-destruction. It is living in its continued differentiation and integration” (Schilder, 1935/1950, pg. 15-16). All in all, body image was originally conceptualized as a contextualized and interconnected phenomenon. Schilder is thus typically credited not only with coining the term ‘body image’ but also with developing the first biopsychosocial theory of body image (Cash & Smolak, 2011). However, at his time, Schilder’s work was largely viewed as marking the new era of psychoanalytically-based research on body image, which came to replace the previous neurologically-based understandings of the body schema (Shontz, 1969). The categorization of Schilder’s work as psychoanalytic was cemented

further when Seymour Fischer built on Schilder's theory to develop his own prolific psychoanalytic theories of body image (Fischer, 1986; Fischer & Cleveland, 1958).

The “Growth” of Body Image: Individually-Anchored Aspects

If Schilder is credited with opening the door for psychoanalytic theories of body image then perhaps it is Frank Shontz who can be credited with opening the door for the cognitive theories of body image that succeeded the psychoanalytic era (Cash & Pruzinsky, 2002b). Shontz (1969) clearly differentiated his own perceptual and cognitive theory of body image from the psychoanalytic theories at the time. In contrast to the breadth of Schilder's body image, Shontz identified a “deliberate narrowness” in his understanding of body image with a specific focus on body perception and cognitions (Shontz, 1969, pg. v). Shontz thus contributed to the privileging of individual-level cognition as a primary “source” of body image. An obvious consequence of Shontz' conceptualization of body image is that it helped pave the way for cognitive-behavioural theories of body image to largely replace psychoanalytic theories in contemporary body image work (Cash & Pruzinsky, 2002b). Perhaps a less obvious consequence of Shontz' conceptualization is that it shifted research from examining body image as a contextualized and interconnected phenomenon (Schilder, 1935/1950) to studying body image as a phenomenon comprised of distinct, individually-anchored aspects (Shontz, 1969; see Figure 1).

Figure 1: *Historical Trajectory of Body Image*



Importantly, what is perhaps less well-remembered or known about Shontz's work is the rationale he provided for his shift in conceptualization. Indeed, Shontz is often cited as being "critical of the psychodynamic viewpoint" (Cash, 2004, pg. 2), even though Shontz himself warned against completely discounting psychoanalytic theories of body image such as Schilder's (Shontz, 1969, pg. 15). In reality, Shontz' (1969) rationale for focusing on cognitive and perceptual aspects of body image appeared to be driven more by methodological necessity than theoretical value. As he states in the introduction of his book on cognitive-perceptual theories of body image, "Psychology as a science is currently better prepared to perform effective experiments on the question of how people perceive the geometric properties of their body than it is to tackle the more romantic but less clearly defined question of how the body enters into the structure of the whole personality" (Shontz, 1969, pg. v). In fact, he even seemed hopeful that, one day, these "methodological problems" could be overcome and conceptualizations of body image re-broadened and once again include psychoanalytic theories: "Should a bridge someday

be built between the [two] classes, the contribution to psychology will be deemed great by those who cannot bridge it now” (Shontz, 1969, pg. 15).

The Beginnings of a Bridge: Contemporary Psychological Body Image Research

Tracing the history of the contemporary body image concept highlights how the decision to move from one conceptualization to the next was not always driven by empirical or theoretical merit. Evidently, Shontz’ narrowed conceptualization of body image, which serves as the theoretical starting place for many contemporary conceptualizations of body image, was spurred largely by feasibility. However, since Shontz’ time, a significant body of contemporary research has accumulated (e.g. Cash & Smolak, 2011; Tylka & Piran, 2019). In particular, beginning in the 1990s, body image research dramatically increased as a result of the growing realization that body image was an overlapping area of interest for researchers who studied both eating disorders (e.g., Thompson, 1990) and physical appearance (e.g., Cash & Pruzinsky, 1990). The resulting advances in contemporary body image research first led body image researchers to expand beyond individually-anchored theories of body image, and thus understandings of body image shifted to reflect a more contextualized phenomenon (e.g., Thompson, Coover, et al., 1999; Thompson, Heinberg, et al., 1999). Then, new body image measures began to show how contextual factors and one’s body image were more dynamically interconnected than previously thought (e.g., Cash, 2002; Cash et al., 2002). In sum, through advances in theory and measurement, contemporary body image research has indeed started to re-broaden understandings of body image.

Moving Back to a Contextualized Body Image: The Sociocultural Model

Thompson and colleagues (1990, 1999, 1999) identified body image disturbance as a key risk factor for eating pathology, which led to progress in both the assessment and theoretical

models of body image. After recognizing the connection between body image and eating disorders, initial theorizing about the development of body image disturbance incorporated factors known to contribute to eating pathology. These factors included individual-level influences such as self-ideal discrepancy, but also included developmental influences such as peer teasing and timing of puberty, and sociocultural influences such as gender, media, and appearance ideals (Thompson, 1990). Eventually, this multi-level understanding of body image disturbance was solidified through the sociocultural or tripartite model (Thompson, Covert, et al., 1999; Thompson, Heinberg, et al., 1999). The original model argued that different sociocultural appearance ideals exist across time and place, and that in contemporary western society the predominant appearance ideal for women is the thin-ideal. The thin-ideal of western society was thought to trickle down to individual women through three primary “channels”: friends, family, and the media. Through perceiving pressure to be thin from these three sources, women begin to internalize the thin-ideal as a reference point for their own bodies. Then, in order to gauge the extent to which they are meeting this ideal, women compare their bodies with other women’s bodies. However, because the thin-ideal is by its nature an “ideal,” it is virtually impossible to achieve and women inevitably find themselves falling short of their desired body, thereby increasing their risk for developing body image disturbance and subsequent disordered eating (Thompson, Covert, et al., 1999; Thompson, Heinberg, et al., 1999; Tiggemann, 2011).

Significant support for the sociocultural model has emerged in both cross-sectional and longitudinal research (Dohnt & Tiggemann, 2006; Shroff & Thompson, 2006; Wertheim et al., 2004). In addition, although the original model was based on research with primarily young, white, females pursuing a thin-ideal (Heinberg et al., 1995; Thompson, Covert, et al., 1999; Thompson, Heinberg, et al., 1999), contemporary research has found support for the

sociocultural model when broadening the range of appearance ideals (e.g., Schaefer et al., 2017), ages (Carrad et al., 2020), racial identities (Frederick, Schaefer, et al., 2022), gender identities (Hazzard et al., 2022; Peplau et al., 2009), and sexual orientations (Frederick, Hazzard, et al., 2022). This research has helped solidify the sociocultural model as one of the most widely accepted models for understanding the development of body dissatisfaction (Frederick, Crerand, et al., 2022; Frederick, Hazzard, et al., 2022, Frederick, Tylka, et al., 2022a, Frederick, Tylka, et al., 2022b).

Given the sociocultural model's proposition that the sources of an individual's body dissatisfaction are interpersonal and societal, the model has helped move the field back to an understanding of body image as more contextualized. However, research on the sociocultural model is limited by its exclusive use of trait measures (e.g., Frederick, Tylka, et al., 2022b; Thompson, 1990; Thompson, Covert, et al., 1999; Thompson, Heinberg, et al., 1999). Trait measures are designed to measure specific characteristics that are believed to be fixed within an individual, and thus are regarded as being stable over time and consistent across situations (Fleeson, 2004). As a result, trait measures assess the degree to which an individual embodies a specific characteristic in general (e.g., the tendency to make body comparisons, their internalization of the thin-ideal) rather than the degree to which an individual embodies a specific characteristic at a particular time point or in a particular context (Fleeson, 2004).

Strikingly, the Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ), which was created to measure the interpersonal and societal aspects of the sociocultural theory, is also measured as an individually-anchored trait (e.g., Heinberg et al., 1995; Schaefer et al., 2017). When researching the sociocultural model, the SATAQ is typically only administered once (e.g., Thompson, Covert, et al., 1999; Frederick, Tylka, et al., 2022b), and is used to assess

how much an individual, in general, perceives pressure to be thin from the media, their peers, and their family members. Measuring sociocultural pressures in this way poses some issues. Firstly, if a total score is calculated from the SATAQ (Schaefer et al., 2017), multiple and different sociocultural pressures are converted into an individually-anchored global trait. Using a total score thus removes all the nuance of the different sociocultural pressures (e.g., the possibility that more pressure is felt from family than peers), and instead prioritizes an individual's characteristically "trait" way of interpreting sociocultural pressures as a whole. Similar to other trait self-report measures that attempt to measure multiple dynamic contextual influences in a global, stable, and individual-anchored way, a circular reasoning becomes apparent (Baumert et al., 2019). That is, an individually-anchored trait – perception of sociocultural pressures – is used to explain how another individually-anchored trait – body image disturbance – develops. As such, we find ourselves suggesting that traits come from traits.

On the other hand, if global scores are not used on the SATAQ, and instead each unique sociocultural subscale is used to predict body image disturbance, more information about the unique influence of different sociocultural pressures is available. Researchers can thus examine the impact of different perceived contextual factors on body image disturbance and not just global ways of perceiving these factors as a whole. However, ultimately, the SATAQ remains a trait measure, and thus it can only highlight differences *between* individuals as contributing to body image disturbance (Cash et al., 2002). Such between-person measures cannot shed light on sociocultural factors that might make a *given* individual feel more negatively or positively about their body image in one period of time versus another or in one situation versus another. That is, because sole reliance on between-person measures inherently implies that body image levels remain stable within a given individual, these measures render it impossible to understand the

changes in body image that may occur within a person. In order to understand what and how sociocultural pressures influence changes within a given individual's body image, measures that assess body image repeatedly within a given person are needed. Within-person measures assume that body image reflects a dynamic interconnection between context and the individual, and thus shifts in a given individual's body image levels across different contextual factors (e.g., situations, time periods) can be examined. In sum, although the sociocultural model begins to provide a view of body image as more interwoven with context, this contribution has been primarily theoretical, as measurement choices have prevented the investigation of a contextualized *and* interconnected body image.

Moving Back to Body Image as Interconnected with Context: Within-Person Body Image Measurement

While Thompson and colleagues were integrating research on eating disorders to develop an understanding of body image disturbance, Cash and colleagues were using physical appearance research to develop an understanding of everyday experiences of body image (e.g., Brown et al., 1990; Cash, 1990; Cash, 2001). Cash, too, emphasized the importance of interpersonal relationships and socio-cultural standards in shaping the development of individual body image (Pruzinky & Cash, 1990). However, rather than only emphasizing how individuals' body image-related traits shape the influence of contextual factors, Cash argued that contextual factors may also influence everyday body image experiences and he developed a series of measures to assess how body image changes within a given individual over time and context. (Cash, 1994, 2002, Cash et al., 2002; Fuller-Tyszkiewicz, 2019). Through these unique and important contributions, Cash helped move the field back towards a conceptualization of body image as being interconnected with contextual factors.

Cash and colleagues' (2002) Body Image States Scale (BISS) was one of the earliest measures to assess state body image. Research with the BISS, and with other body image measures that could be completed multiple times by a given person, confirmed that body image has both trait- and state-like properties. That is, body image levels differ not only between individuals but also within a given individual over time and across different situations (Cash et al., 2002; Fuller-Tyszkiewicz, 2019). This research highlighted that a fulsome conceptualization of body image is not available if body image is only measured through individually-anchored, one-time point, trait measures of body image. By using time or context-anchored measures to assess body image repeatedly within a given person, it became clear that body image is much more influenced by changing external factors, and thus much more dynamic than previously thought (Fuller-Tyszkiewicz, 2019).

Despite Cash's theoretical interest in the context-dependent nature of body image (Cash, 1994, 2002; Fuller-Tyszkiewicz, 2019), the vast majority of state body image research has focused on measuring within-person (or intra-individual) differences in body image through time-anchored, rather than context-anchored measures (Fuller-Tyszkiewicz, 2019). One exception includes Cash's (1994) Situational Inventory of Body-Image Dysphoria (SIBID), which measures within-person body image across different situations that are likely to prompt body image concerns, such as looking in the mirror or trying on clothing. Similarly, the Body Image Reactivity Scale attempts to elicit variability in body image ratings by asking participants to repeatedly rate their body image across a range of situations that have been found to vary in their relevance for body image concerns (e.g., trying on a bathing suit in a department store versus running errands in casual clothes; Saules et al., 2009). These within-person body image measures differ from time-anchored body image measures in that they ask about an individual's

general body image experience when they are in multiple specific situations rather than about their body image state at multiple specific time points.

When measuring state body image over time, researchers can still investigate whether the presence (or absence) of specific contextual factors within a given moment predicts state body image (e.g., Breines et al., 2008; Carels et al., 2019; Leahey et al., 2007; Fitzsimmons-Craft, 2017; Fuller-Tyszkiewicz et al., 2018; Jones et al., 2014). Indeed, state body image research has helped elucidate a number of specific social factors (e.g., social comparison and appearance-related comments) and environmental stimuli (e.g., food, exercise) whose presence reliably correlates with changes in state body image (Fuller-Tyszkiewicz, 2019). However, at the same time, assessing within-person body image through time-anchored measures does not prioritize the measurement of specific contextual factors, and thus many studies of state body image do not measure contextual factors at all (e.g., Fuller-Tyszkiewicz et al., 2015; Rudiger et al., 2007; Siedel et al., 2016; Siedel et al., 2018; Stefano et al., 2016). Empirical results from state body image research have made it clear that body image fluctuates within a given individual over time, and thus have helped to elucidate that an interconnected process must unfold between one's context and one's body image. However, the relative paucity of contextually-sensitive measures has made it harder to clarify the specific ways in which context influences within-person body image (Fuller-Tyszkiewicz, 2019).

A potential step forward to understanding the interdependence between context and the changes a given individual experiences in their body image is through integrating the contextual knowledge gleaned from trait theories of body image with the results of within-person body image research. Trait body image theories have highlighted broad sociocultural factors that impact body image across time and situations at the “macro-level” (Tiggemann, 2011;

Tiggemann, 2019) and empirical within-person body image research has helped to identify some specific contextual factors that impact body image at the “micro-level” such as in a given moment or situation. However, the field is currently missing an integrated and fulsome theory that explains how 1) body image differences within a given person, 2) body image differences between people, and 3) contextual factors all integrate with each another (Fuller-Tyszkiewicz, 2019). A starting point may be using trait body image theories to help guide the measurement of within-person body image around theoretically-relevant contextual factors.

The Other Side of the Bridge: Critical-Feminist Understandings of Body Image

As has been highlighted above, Shontz’s (1969) move towards a more isolated and individually-based view of body image has clearly left a mark on psychology’s contemporary conceptualizations of body image. Furthermore, Shontz (and his contemporaries) indirectly influenced the form that alternative conceptualizations of body image began to take as well. As psychoanalytic theories fell out of fashion, conceptualizations of body image, which viewed individuals and their context as being interconnected, needed to find a new home. In contemporary body image research, critical-feminist work has filled the space left behind by psychoanalytic theories and has provided fertile ground for understandings of body image as a contextualized and interconnected phenomenon to grow.

Moving Forward to a Socially Constructed Body Image

In the 1970s, when psychology was spotlighting cognitive and perceptual factors within the minds of individual women as the primary predictors of body dissatisfaction, early feminist theories of body image provided a strikingly different understanding (Blood, 2006). British psychotherapist Susie Orbach produced perhaps the most famous feminist understanding of body image difficulties through her best-selling self-help book, “Fat is a Feminist Issue: The Anti-Diet

Guide” (1978). Orbach’s book created a template for future feminist understandings of body image by highlighting the social construction of women’s bodies. In particular, she outlined how women’s subjective experiences of social and political life within a patriarchal society informed their body image experiences (Blood, 2006). Rather than locating the origin of body dissatisfaction in cognition or perception, Orbach (1978/1988/2006) argued that negative body image experiences were the direct result of gendered power inequality, and thus body image behaviours (such as compulsive eating or dieting) were conceptualized as efforts to maintain some power and control in a patriarchal society. Orbach, and other early feminist body image work, thus locates the sources of body image difficulties within gendered inequality and the power of patriarchal society.

Another significant contribution of early feminist work was placing greater importance on how women used language to describe their body image experiences (Blood, 2005). Indeed, Orbach (1978/1988/2006) developed her conceptualization of body image from running consciousness-raising body image groups where she witnessed the many different meanings women ascribed to their bodies and body image. From these experiences, Orbach concluded that body image will inevitably have multiple and contradictory meanings for any woman given the multiple and contradictory messages that women are socialized to believe about their social position, their power, and their bodies in a patriarchal society. Given the importance of multifaceted and subjective meanings in Orbach’s understanding of body image, an implication of her work was that theory should be grounded in, and developed from, women’s lived experiences of being in their bodies (Blood, 2005; Piran, 2002; Piran, 2017; Piran, 2019).

In sum, early feminist work outlined how body image difficulties are socially constructed through subjective experiences of gendered inequality, and thus argued that body image can only

be truly understood through grounded social/political analysis. At a broader level, this work highlighted how nomothetic processes, such as social construction and patriarchy, come to be expressed in an idiographic form. Taken together, the structure and content of early feminist body image work was such that it did not simply recommend, but rather required, that conceptualizations of body image be contextualized and interconnected.

Moving Forward to a Post-Structural Body Image

Early feminist body image theorists helped outline some of the core assumptions that differentiated feminist understandings of body image from psychological understandings. However, over time, these assumptions were problematized and then re-developed (e.g., Bordo 1993a, 1993b; Fallon et al., 1994), resulting in contemporary critical-feminist conceptualizations of body image. The greatest change from early feminist theories, and perhaps one of the clearest hallmarks of contemporary critical-feminist theories, is the inclusion of post-structural/post-modern theory. In particular, the work of French philosopher Michel Foucault has been extremely influential.

Early feminist theories of body image came to be criticized for creating a dichotomy between the “oppressors and the oppressed,” which implied that women were powerless to the influences of patriarchal society (Blood, 2005; Bordo, 1993b). Foucault’s post-structuralism was incorporated into later feminist body image work to provide a more complicated view of power. Foucault’s understanding of power possesses several unique qualities. Perhaps most importantly, Foucault emphasized that power arises out of a dynamic network of sociohistorical forces. Power, then, is not something to be ‘possessed’ by one group or person but instead is created through multiple dynamic processes that are particular to a social-historical position (Blood, 2005; Bordo, 1993b; Weedon, 1997). Nonetheless, the process through which power arises is not

considered to be random. Dominant institutions, social positions, and ideologies are seen as being created through, and then starting to influence, these dynamic sociohistorical forces. As Bordo describes (1993b), “[Power] is ‘held’ by no one; but many people and groups are positioned differently within it. No one may control the rules of the game. But not all players on the field are equal” (pg. 191).

In addition, Foucault argued that power is largely exercised among individuals not from ‘above’ through coercion or force but from ‘below’ through self-surveillance to meet specific norms (Bordo 1993b). He famously writes,

“There is no need for arms, physical violence, material, constraints. Just a gaze. An inspecting gaze, a gaze which each individual under its weight will end by interiorizing to point that he is his own overseer, each individual thus exercises surveillance over and against himself” (Foucault, 1980, pg. 155).

Foucault thus saw the most powerful processes as being the most invisible. In his view, dominant societal norms, values, and ideas exercise the greatest power when they become internalized to the degree where they are no longer visible as a cultural influence but instead come to feel like the only way of being.

Although often interpreted in different ways, and not without controversy, Foucault’s understanding of power has significantly influenced critical-feminist work on body image (e.g., Chrisler & Johnston-Robledo, 2018; Riley et al., 2023). Sylvia Blood’s (2005) work on the role of psychological body image research in the normalization of dominant body image ideals and practices acts as a prime example. For example, Blood (2005) criticizes the sociocultural theory of body image for reducing complex social and historical forces into simple variables (i.e., “sociocultural pressures”). She argues that the universalizing nature of the sociocultural theory

helps obscure how power actually operates through the normalization of specific cultural ideas, norms, and practices at a specific time and place. In addition, she outlines how the universalizing tone of the theory also inherently reinforces the norm that all women view their bodies through an aesthetic lens. Similarly, Blood highlights how early experimental body image on perception determined ‘normal’ body image by getting women to make estimations of their body size, which were then compared to the researcher’s (most often a white male) ‘true’ measurements of women’s bodies. Blood (2005) writes, “Body image research normalizes and reproduces those gendered social practices where men look at women’s bodies/subjectivities and pass judgement on them” (pg. 38). As a final example, Blood draws attention to how the dominant focus on ‘traits’ within contemporary body image theories implies that the ‘cause’ of body image difficulties is located within individuals. As a result, Blood (2005) argues that trait theory places individuals responsible for their own body image, and thus may reinforce the idea that greater inward attention to one’s own attitudes and behaviour is the main way to improve one’s body image. As a result, individuals may actually engage in greater self-surveillance, such as through greater monitoring of their ‘willpower’ or eating habits, in attempts to try and improve their own body image.

Related critical-feminist approaches are also found in the eating disorders field. Here too, the work focuses on identifying the invisible processes of power which contribute to dominant norms, ideas, and values in a specific socio-historical moment. For example, Bordo (2009) describes how early research on eating disorders was based primarily on studies with white middle-upper class women whose families had the most capacity to seek treatment. As a result, a very distinct and limited picture of disordered eating formed the basis of the original – and lingering - dominant conceptualization of eating disorders (Bordo, 2009). Importantly, critical-

feminist work not only sheds light on these types of processes, but also creates space for resistance to these dominant processes. For instance, in recognition of and in resistance to the historical body of research on eating disorders, critical obesity and fat studies research is an increasingly burgeoning field in critical feminist work (e.g., Gard et al, 2021; Pausé & Taylor, 2021).

Contemporary critical-feminist understandings of body image thus critically evaluate and often problematize psychological theories and research on body image. They provide alternative conceptualizations whereby body image is viewed as being produced by complex and inconspicuous processes of power in specific socio-historical contexts. Importantly, these processes include the contribution of dominant institutions such as academia or medicine. Yet equally importantly, and in line with Foucault's 'bottom-up' understanding of power, critical feminist work tends to use individuals' lived experiences to help illuminate the idiosyncratic nature of these power processes (e.g., Blood, 2005; LeMarre & Rice, 2015; Riley et al., 2023; Rinaldi et al., 2016). Critical-feminist conceptualizations of body image thus remain deeply contextualized, and they also continue to emphasize the interconnection between individuals' own subjective experiences and broader contextual processes.

Moving Forward to an Intersectional Body Image

After the initial integration of post-structural theory to help ground critical-feminist understandings of body image, a growing body of reflexive feminist work has worked to illuminate the formation of dominant norms within feminist work. As feminist scholar Jen Rinaldi puts it, "Normative expectations have a habit of creeping into critical studies" (Rinaldi et al. 2021, pg. 2). This body of work has helped illuminate how traditional feminist scholarship has also contributed to the "mythical norm" (Rice et al., 2021, pg. 99), through its tendency to

focus predominantly on the body image experiences of more privileged members of the population (e.g., cis-gender, able-bodied, white women from the Global North; Rinaldi et al., 2016; Rinaldi et al., 2021). As a result, critical body image scholars now stress the importance of an intersectional feminist approach.

An essential component of intersectional body image work is dialogue and collaboration with other interdisciplinary fields in order to meet the need for further research with “people living with difference” (e.g., Rice et al., 2021, pg. 96). By continuing to incorporate post-structural theory, intersectional body image work highlights how dominant social identities are shaped through, and influence, dynamic process of power within a specific social-historical context. As such, intersectional body image work aims to keep “a complicated and dynamic engagement with non-normative bodies of all shapes, sizes, races, abilities, genders, and sexualities, as well as with impactful socioeconomic and historical forces underpinning these, including colonialism, neoliberalism, geopolitics, and beyond” (Rinaldi et al., 2021, pg. 1/2).

Intersectional body image work thus illuminates how identities and social conditions interact to create the conditions for power and disempowerment. For example, Rice and colleagues (2020) article on queer women’s embodiment focuses on how dominant ideas of obesity or eating disorders help to uphold white, cisgender, heteronormative, and colonial body norms that obscure LGBTQI+ body image experiences. Importantly, this work warns against only concentrating on distinct forms of structural discrimination, such as sexism (Rice et al., 2020). Rather than focusing attention on isolated and static categories of identity that are decontextualized from the specific sociohistorical contexts, Rice and colleagues (2020) argue that, “Identities are impossible to separate (for they mutually transform one another) or to disentangle from power (which shapes their materialism)” (pg. 180). Intersectional feminism

thus expands beyond traditional views of sexism, and instead examines how gender oppression may intersect and interact with other processes of power, such as capitalism and colonialism, and other experiences of inequality, such as racism (Arruzza et al., 2017).

The Gap Between Critical-Feminist and Contemporary Psychological Understandings of Body Image

There are both distinct and overlapping aspects between psychological understandings of body image and critical-feminist understandings. Both fields have moved towards conceptualizations of body image as contextualized and interconnected but the way these understandings have developed has been different (Rice et al., 2021; Riley, et al., 2023). Notably, psychology researchers have developed theories of body image that are increasingly contextualized, such as through the sociocultural theory (see Tiggemann, 2011 for a review). In addition, the development of within-person body image measures has allowed a growing understanding of the dynamic interconnection between contextual factors and an individual's body image (see Fuller-Tyszkiewicz, 2019 for a review). However, these contextualized theories and interconnected measures currently remain relatively separated. Sociocultural theories are not studied using within-person measures. Similarly, methods that measure individual and contextual factors in a more interconnected way, such as state body image scales, tend to be anchored to atheoretically-derived time periods, rather than with reference to theoretically-relevant contextual factors (Waring et al., 2022). Therefore, measures aimed at assessing body image as interconnected between the individual and their context do not reflect the existing theories about the nature of this interconnection. As such, the field's understanding of body image as contextualized *and* interconnected has been unable to develop.

In contrast, within critical-feminist work, body image is not only contextualized but also seen as inextricably interconnected with context. Bodies are seen as being “produced through and within context” and as such body image cannot be separated from specific socio-cultural contexts and cannot be seen as static (Rice et al., 2021, pg. 5). As Rice and colleagues explain, “Self, body, and world are always in the process of becoming, continuously shaped by and shaping each other” (2021, pg. 97). Given that the tenets of post-structural theory fit well with the underlying philosophy of many qualitative methods, most feminist theories and methods equally allow for understandings of body image as an interconnected and contextualized phenomenon to develop in tandem (e.g., Clark & Braun, 2019; Lafrance & Wigginton, 2019; Thompson et al., 2018).

It appears that instances of siloing within psychological body image research may contribute to the remaining gap between critical-feminist and psychological approaches to body image. The lack of integration between contextualized theories and interconnected methods within psychological body image research prevents body image from being seen as both a contextualized and interconnected phenomenon. As a result, it then also becomes hard to bridge the gap between psychological and critical-feminist understandings of body image.

Problems with Assimilating Critical-Feminist Theories

Despite the somewhat differing conceptualizations of body image in psychology compared to critical-feminist work, there has been increasing conversation between these two literatures. For example, around the early 2000s, ‘feminist perspectives’ started to be regularly incorporated into body image and eating disorder literature as an important lens through which to consider body image and disordered eating experiences (e.g., McKinley, 2002; Smolak & Striegel-Moore, 2004; Thompson, Heinberg, et al., 1999). These ‘feminist perspectives’ are now

most often represented in psychological body image research through Objectification Theory, which highlights how socially constructed gendered differences result in power inequities that contribute to body image concerns (Fredrickson & Roberts, 1997). In particular, the sexual objectification of women through the “male gaze” is argued to result in women internalizing this view of themselves resulting in self-objectification. Through objectification theory, a second socio-cultural influence – that is, objectification - has been integrated into psychological body image understandings. In fact, recently objectification theory and sociocultural theory have been merged into an integrated model of body image to provide one grand theory of sociocultural body image (Frederick, Tylka, et al., 2022a; Frederick, Tylka, et al., 2022b).

The inclusion of objectification theory in dominant sociocultural models of psychological body image work demonstrate the influence of feminist perspectives. However, in order to study objectification theory in psychology, the theory was operationalized and empirically investigated through individually-anchored trait measures. Measuring objectification processes in this way implies that objectification is a universal, static, and individually-based construct rather than the idiographic, dynamic, and socially-constructed process it is understood to be within feminist work (e.g., Blood, 2005). The current operationalization of objectification theory in understandings of psychology thus results in main tenets of feminist theory and practice being lost.

The shift towards representing more diverse samples in body image research also highlights how measurement issues can result in feminist work being assimilated rather than integrated. On the one hand, criticisms raised by critical-feminist scholars and others about the failure to include underrepresented voices in the research underlying ‘universal’ theories of body image and disordered eating have clearly been heard as psychological research increasingly

prioritizes examining dominant body image theories and related measurement scales across different demographic groups (e.g., Frederick, Hazzard, et al., 2022; Frederick, Schaefer, et al., 2022; Lowy et al., 2021). However, psychological research has operationalized experiences of difference into isolated demographic categories such as gender, ethnicity, or sexual orientation (e.g., Frederick, Hazzard, et al., 2022; Frederick, Pila, et al., 2022; Frederick, Schaefer, et al., 2022). Once again, essential parts of feminist theory and practice, such as the need to study intersecting, emergent, and contextualized identities rather than separate, static, and universal categories, are lost.

Examples of Accommodating Critical-Feminist Theories

Other areas of psychological body image work have been more able to accommodate rather than assimilate critical-feminist theories. One area of study where this process of accommodation particularly stands out is within positive body image and embodiment research. Work on positive body image and embodiment was spurred by the growing recognition that primarily focusing on negative body image in theories and research “cannot capture the complex experience of living in the body” (Tylka & Piran, 2019, pg. 1). From its inception, then, positive body image and embodiment research has changed not only the target of body image research but also the scope. The incorporation of feminist theory and methods is one way to help broaden the field’s understanding of body image (Tylka & Piran, 2019).

A key example of this accommodation is the inclusion and primacy of Piran and colleagues’ program of feminist research about embodiment within the positive body image literature. Piran and colleagues’ mixed-method research on embodiment, that is, women’s experiences of living in their bodies, provides a holistic and developmental theory that explicitly links the quality of embodiment to sociocultural power structures (Piran, 2019). Piran’s work on

embodiment has been integrated into, and continued by, other positive body image research (Chrisler & Johnston-Robledo, 2018; Cook-Cottone, 2019; Cook-Cottone, 2020; McBride, 2018). The integration of psychological and feminist work within the positive body image and embodiment field seems to be aided by not only an openness to more traditionally feminist theory, but also more typical feminist methods, such as qualitative work. Compared to using trait measures, qualitative methods are much more able to preserve the dynamic and socially-based understandings of body image that underpin feminist work. Indeed, positive body image and embodiment work have been intentional about using mixed-method approaches (Cook-Cottone, et al., 2020; Cox et al., 2020; Webb et al., 2015).

Nonetheless, there are still instances of clashing methods and theory within positive body image and embodiment research. A salient example is visible in the Acceptance Model (Avalos & Tylka, 2006; Tiggemann, 2019). The Acceptance Model is informed by the sociocultural model (Tiggemann, 2011), and was developed to help explain how body acceptance from others promotes positive body image and adaptive eating habits. Similar to the sociocultural model, the Acceptance model has been empirically validated primarily through quantitative research that uses traditional trait measures (e.g., Andrew et al., 2015, Andrew et al., 2016; Augustus-Horvath & Tylka, 2011; Homan & Cavanaugh, 2013; Swami et al., 2017). This includes trait measures to measure the sociocultural aspects of the model, that is, body acceptance by others. Similar to the SATAQ, which is used to measure perceived pressure to be thin in the sociocultural model, the Body Acceptance by Others Scale (BAOS; Avalos & Tylka, 2006) typically results in one unidimensional trait score that aggregates one's perceived body acceptance scores across five different sociocultural influences (family, peers, romantic partner, media, society).

Given that the role of sociocultural influences is more widely acknowledged and understood in positive body image and embodiment research (Cook-Cottone, 2019, 2020; Piran 2018), the problems with continuing to measure social influences primarily as individually-anchored traits are perhaps more glaring. Social forces that are known to be complex, interconnected, and dynamic) are reduced down to unidimensional, static, and individually-anchored concepts. These and other issues were raised with reference to the BAOS (e.g., Swami, Furnham et al., 2020; Swami, Todd, et al., 2020; Waring & Kelly, 2020), which recently resulted in a revised version of the BOAS being developed (Swami et al., 2021). Interestingly, the BAOS-2 is actually more unidimensional than the previous version as perceived body acceptance is now measured with reference to all “important others” rather than across five different sources. While this revised version of the scale allows for more conceptual and methodological alignment, in some ways it moves further away from critical-feminist understandings which often try to demonstrate how nomothetic sociocultural forces are manifested in specific and idiographic forms (Riley et al., 2023). By examining body acceptance across all ‘important others,’ the BAOS-2 now more accurately captures the nomothetic construct of body acceptance but no longer captures more idiographic and contextualized understandings (e.g., differences in perceived body acceptance between friends versus family).

Moving Towards Further Integration

In some ways, the gap between psychological and critical-feminist body image work has become smaller over time. Promisingly, more contemporary areas of psychological body image research such as positive body image and embodiment have more examples of integration rather than assimilation between these two approaches (e.g., Arroyo et al., 2022; Cook-Cottone, 2019; Rice et al., 2021). However, signs of disintegration are also still visible (e.g., Burke, 2006;

Coleman, 2009; Riley et al., 2019; Riley et al., 2023). It appears that in order to move towards further integration between psychological and critical-feminist understandings of body image, a first step will be finding ways to integrate contextualized theory and interconnected methods within psychological body image research.

Using History: Relationships as the Foundation for the Bridge

It is clear that significant progress has been made in contemporary understandings of body image. At the same time, the state of the field is still somewhat reminiscent of where Shontz found himself in 1969 when he wrote, “The fact is that research problems in body experience currently fall into two readily distinguishable classes” (1969, pg. 15). The current literature is in some ways still separated between one ‘class’ that portrays body image as interconnected and contextualized and another ‘class’ that largely portrays body image as individual-anchored, with the occasional use of interconnected methods or contextualized theories. At his time, Shontz chose the narrower ‘class’ to further study because he felt that “psychology as a science” was more prepared to conduct experiments on the specific aspects of body image (1969, pg. v). However, as noted before, he expressed hope and optimism that one day advances in theory and methods would re-broaden allowing for “a bridge to be built between these two classes” (1969, pg. 15).

Since Shontz’ time, significant advancements have been made not only in body image, but also in ‘psychology as a science’ and in the social sciences more broadly. Research outside of body image has produced innovative theories and methods that may provide some of the building blocks needed to transform Shontz’ wish for a bridge into a reality. New ideas can also bring life to old ideas that have been forgotten but are now once again relevant.

The “Rebirth” of Body Image: Returning to Schilder

Schilder (1935/1950) has been credited with creating the construct of body image; however, an important element of Schilder’s original theory of body image that has often been forgotten or overlooked is the centrality he placed on relationships. When Schilder wrote of the three bases for body image – physiological, psychological, and sociological – the sociological basis of body image was in some ways more relational than sociological. He states:

“Body images are on principle social; our own body image is never isolated but is always accompanied by the body images of others...there is continuous interchange by the parts of our body-image and the body-images of others.... the body images of others and their parts can be integrated completely with our own body image and can form a unit, or they can simply be added to our own body image and then merely form a sum” (Schilder, 1935/1950, pg. 240, 241).

For Schilder, the sociological basis was primarily relational because it is through relationships that he believed broader societal influences came to impact individual body image (1935/1950). It is the ‘social’ that he saw as the connecting link between the psychosocial and the sociocultural.

Schilder’s theory of body image, and in particular his focus on relationships, provides a point of overlap between psychological understandings of body image and critical-feminist understandings. Similar to critical-feminist work, Schilder sees macro-level sociocultural influences as having a strong influence on body image, and similar to the sociocultural theory, he sees relationships as being the conduit for these broader influences. However, unlike the more isolated and static depiction of relational ‘channels’ in the sociocultural theory, for Schilder, there is a dynamic integration and flow between the body image of self and others. He states:

“All these persons outside ourselves are necessary to build up the picture of our own body. When we have built up our own body we spread it again all over the world and melt it into others... There is a constant giving and taking.” (Schilder, 1935/1950, pg. 273). Schilder’s understanding of body image and relationships is thus more similar to work on within-person body image and critical-feminist work, which sees a dynamic interconnectedness between an individual’s body image and their environment. In sum, by focusing on relationships, body image in Schilder’s original conceptualization is able to be both individually- and sociologically based, and thus both interconnected and contextualized. Focusing on relationships may thus be one way to bridge the gaps within and between psychological and critical-feminist understandings of body image.

The Relational Building Blocks of a Bridge

The importance of relationships to human functioning is an old and largely undisputed idea (e.g., Baumeister & Leary, 1995; Bowlby, 1969, 1973; Cooley, 1902/2017; Freud, 1917/1957; Mikulincer & Shaver, 2006; Sullivan, 1953/2014). However, in more recent times, psychological science has given further substance to this idea through gathering significant empirical evidence that helps to clarify how and why relationships impact individuals (see Baldwin, 2006 for a review). These advancements in knowledge have largely been driven through harmonious partnerships between older traditions of knowledge and new empirically-tested methods and theories. As a key example, psychodynamic, attachment, and interpersonally-based understandings of human functioning are now increasingly being integrated into social cognitive personality work, which has allowed for a burgeoning and rich new literature on interpersonal cognition (Baldwin, 2006; Fitzsimons & Anderson, 2013). Taken together, this body of literature offers many building blocks for a bridge first, between the contextualized and

interconnected understandings in psychological body image work, and second, between psychological and critical-feminist understandings of body image.

Relational Building Blocks: Working Models of Self and Others in Relational Psychodynamic Approaches

Traditional psychoanalytic theory tends to be associated with Freud's drive psychology, which saw intra-psychic conflict between sexual/aggressive instincts and societal expectations as underlying distress and psychopathology (Freud 1905/1953). However, beginning in the 1950s, more relational approaches to psychoanalysis began to develop (Curtis, 2020; Luyten et al., 2017). Sullivan and colleagues started a tradition of relational psychiatry work in the United States (Sullivan, 1953), while object relations work simultaneously developed in Great Britain (Fairbairn, 1952, Greenberg, 1983). These approaches were the beginnings of a major paradigm shift in psychoanalytic thought whereby relationships and in particular, the need to have interpersonal relationships, came to be thought of as the core motivation underlying human behaviour (Cooper, 1987; Curtis, 2020; Greenberg, 1983; Levenson, 2010). Nowadays, the "relational umbrella" of psychodynamic therapy is wide, and most psychodynamic approaches recognize the importance of relationships (Curtis, 2020). Relationships are thought to be important for two primary and interrelated reasons. Firstly, relationships are seen as central to the healthy development of human beings. It is through interactions in early relationships that humans develop a blueprint for how to understand others and themselves (e.g., Shaver & Mikulincer, 2002; Mikulincer & Shaver, 2017). Secondly, relationships remain a central force in any healthy life. Indeed, many of the difficulties people face in their adult life tend to be relational in nature rather than individually-based (e.g., Mikulincer & Shaver, 2010, 2017). Overall, psychodynamic relational approaches see human suffering arising primarily from

relationship difficulties: past and present, external and internalized (Blatt, 2008; Curtis, 2020; Levenson, 1995).

Working Models in Attachment Theory. Attachment theory and research has made a significant contribution to the relational/interpersonal psychodynamic approach. Bowlby's (1969, 1973, 1980) work confirmed that human beings are indeed born with a drive to seek proximity and support from caretakers when in distress in order to protect themselves from physical or emotional threats. Bowlby also outlined how the way that caretakers respond to children's needs for support and proximity will uniquely shape the internal working models of others and self that children develop. Bowlby's attachment models, now referred to as attachment styles, describe a systematic set of expectations, feelings, and behaviours that characterize interpersonal relating and are thought to originate from early childhood experiences with caregivers (Mikulincer & Shaver, 2006).

Various conceptualizations of adult attachment styles exist. Hazan and Shaver (1987) first derived 3 adult attachment styles by building on Ainsworth et al.'s (1978) description of the three categories of attachment patterns observed in children. Their model of attachment states that if caretakers are responsive and available to their children in times of distress, then children are able to access a sense of connectedness and security in terms of stress (Mikulincer & Shaver, 2003; Mikulincer & Shaver, 2006; Mikulincer & Shaver, 2017). As a result, children learn to expect that key others will be available and supportive when needed. They will continue to engage in support seeking in the future when distressed and will develop a secure attachment style. However, when caretakers are inconsistently available or unresponsive to children's needs, then children are left with a sense of insecurity. As a result, children start to develop strategies other than support seeking to try and regulate their distress. Insecure-ambivalent attachment

styles are thought to develop when responsiveness from caregivers is inconsistently available. Children learn that caregivers will sometimes but not always be available to them. As such they develop hyper-activating attachment strategies in an effort to create a more reliable sense of attachment security. These strategies can include intense appeals for support at any sign of threat and/or a developing a strong dependence on attachment figures. On the other hand, insecure-avoidant attachment styles develop when caregivers are reliably unresponsive and unavailable to children. Children learn that caregivers will not be available to meet their needs in times of distress, and as such they develop attachment de-activating strategies such as downplaying their emotions and keeping distance with others. In general, attachment strategies are viewed as being adaptive in childhood. Children are dependent on their parents regardless of whether their attachment needs are met or not. Thus, the attachment strategies that develop typically represent the best way children can attempt to have their needs met while still maintaining their necessary relationships with early caregivers (Mikulincer & Shaver, 2003; Mikulincer & Shaver, 2006; Mikulincer & Shaver, 2017).

Later work on attachment styles moved from a three category, to a two-dimensional view of attachment (Bartholomew & Horowitz, 1991; Brennan & Shaver, 1998). In this conceptualization, an individual's attachment style is thought to be determined by both the degree attachment anxiety and the degree of attachment avoidance they present. This results in four rather than three primary attachment styles, with the new fearful-avoidant or disorganized attachment style describing individuals who exhibit a high degree of both attachment anxiety and avoidance. This attachment style is believed to develop when children experience early experiences of abuse or neglect from caregivers. As a result of these experiences, children learn that, sometimes, proximity seeking to caregivers can be a source of security whereas at other

times, caregivers themselves can become a threat to emotional or physical safety. Disorganized attachment strategies include an approach-avoid style of relating to others and a reliance on dissociation. A large body of research on attachment theory has corroborated the idea that early childhood experiences have a significant impact on the way individuals learn to relate in future relationships (Mikulincer & Shaver, 2003; Mikulincer & Shaver, 2006; Mikulincer & Shaver, 2017). The multiple difficulties that have been found to co-occur with insecure attachment styles in adulthood are thought to occur largely because old attachment strategies get employed in new relationships. While these attachment strategies were adaptive in the past, they become less adaptive when employed in new relationships where they are no longer needed. Paradoxically, the strategies that were developed to help maintain early relationships can make it challenging to form and maintain healthy relationships in adulthood. Promisingly though, research has also shown that relationships with important others throughout one's life can alter attachment models formed during childhood (e.g., Mikulincer & Shaver, 2017). Relatedly, more recent research has challenged the idea that individuals only show one global and static trait-like approach to attachment. While on average, individual may tend to show a characteristic way of relating to others, research has also shown that across different specific relationships individuals may show variability in their attachment style (e.g., Cozzarelli et al., 2000; Dugan et al., 2022; Fraley et al., 2011; Fraley & Dugan, 2021; Khlohn et al., 2005; Overall et al., 2003). Taken together, seminal attachment work has shown the importance of early caregiver relationships in shaping developmental working models of others, while contemporary work has determined that these working models are not as static or global in nature as previously thought.

Working Models in Interpersonal-Psychodynamic Therapeutic Approaches. As a result of the relational paradigm shift in psychoanalytic theory, and the increasing knowledge

development around attachment, there has been a growing movement towards interpersonal-psychodynamic therapeutic approaches (e.g., Curtis, 2020; Hewitt et al., 2017; Tasca et al., 2021). These therapeutic approaches differ from past psychodynamic approaches as they move away from the idea of resolving intrapsychic conflict (one-person work) as the crux of therapeutic change and instead assume that resolving interpersonal conflict (two-person work) will be the mechanism of change. In addition, in part because to their later development and tendency to focus on briefer treatment, these “two-person” therapeutic approaches differ from past “one-person” approaches in that they have been built on a growing body of empirical work (Farber, 2020; Levenson, 2010, 2017).

A core tenet in contemporary interpersonal-psychodynamic approaches is that the therapeutic relationship can be used to help shift clients’ working models of self and others to be more adaptive. Of particular eminence is Strupp and Binders (1984) time-limited dynamic therapy (TLDP). Early psychotherapy research by Strupp highlighted that it is difficult for therapists to form strong working alliances with clients who have experienced attachment-related difficulties. As such, Strupp and Binder (1984) created a way of conceptualizing client difficulties in relational terms to help both therapists and clients understand how dysfunctional interpersonal styles that were learned in the past are being maintained in the present and in particular, how they will be maintained in the therapeutic relationship without intervention. Through integrating relevant interpersonal theory (Horowitz & Stack, 2010; Sadler et al., 2011), TLDP highlights how clients’ interpersonal style may “pull” for a complementary response from others including therapist. These repetitive interpersonal patterns, or transference-countertransference re-enactments, keep the client “stuck” in old working models of self and others and prevent them from being updated to more adaptive and healthy forms (Levenson,

2017). Conceptualizing the client's dysfunctional interpersonal patterns, thus becomes key for therapists in their efforts to provide a corrective or "new experience" (Bowlby, 1988, pg. 138; Farber, 2020; Levenson, 2017). From this conceptualization, therapists can intentionally react in a non-complementary and non-typical way to a client's interpersonal style, which can help shift client's working models of others and self within the therapeutic relationship.

In TLDP, the primary way of conceptualizing clients' difficulties is through the Cyclical Maladaptive Pattern (CMP; Strupp & Binder, 1984). The CMP has since become a central part of conceptualization in other forms of interpersonal-psychodynamic therapy as well (e.g., see Tasca et al., 2021 for a review). The CMP provides a blueprint for recurrent interpersonal patterns and is particularly helpful in outlining the connection between working models of others and working models of self. It demonstrates how client behaviours, expectations of others, and views of self can create a self-perpetuating and self-defeating interpersonal cycle that keeps clients stuck in maladaptive ways of relating. The CMP is made up 4 key categories. First, *acts of the self* refer to the way a client thinks, feels, and acts in interpersonal situations. Second, *expectations of others* describe how a client expects the other person will view and react to their acts of self. Then, *acts of others* describe the actual behaviours of the other person towards the client and how they are interpreted by the client. Finally, *the introject* or *acts of self towards the self*, describe how the client views and acts towards themselves.

Perhaps more explicitly than Bowlby's working models of attachment, the CMP demonstrates how working models of self and others are inextricably connected. The way caregivers respond to a child informs the child's (and eventually the adult's) expectations of how others will respond to them. Importantly, the way caregivers respond to a child also informs the way a child learns to view and relate to themselves (Bowlby, 1969; Kohurt, 1971, Levenson,

2017). When there is synchrony between a child's needs and a parent's responsiveness, children not only internalize the belief that others will be available and responsive to their needs, yet also learn that all parts of themselves are worthy of other's care and attention. Others' responsiveness is thus the basis for a stable and cohesive sense of self. In contrast, continued asynchrony between a child's needs and a parent's response can result in the development of an instable and often fragmented sense of self. Given children's dependence on their parents, it is too threatening for a child to view their parents' deficiencies as the reason for their needs being unmet. Instead, children internalize their parent's inability to meet their needs. They start to believe that it is their own personal deficiencies which make their parents unable to meet their needs. As a result, children may try to change or hide these perceived deficiencies, and often learn to relate to themselves in a self-critical manner in order to push themselves towards a 'worthy' version of self. The self and other are thus deeply interconnected as one learns how to relate to oneself through the ways that others have related to them.

Relational Building Blocks for Body Image. Overall, the relational shift in psychodynamic theory demonstrates the growing acknowledgment that many psychological constructs that were previously thought to be located within the individual are in fact socially rooted (e.g., Gilbert, 2005; Treasure et al., 2020; Wright et al., 2022). Indeed, interpersonal-psychodynamic and attachment work has shown that the constructs of 'self' and 'other' are much more intertwined than previously thought, and working models of other inform, shape, and merge into working models of self. Given that attitudes towards the self and the body are thought to be closely related (O'Dea, 2012), conceptualizing body image as an interpersonal rather than individual construct could provide a more fulsome and fruitful understanding of its nature.

Relational Building Blocks: Social-Cognitive Approaches in Personality Psychology

As the above research outlines, the shift towards a more relational approach and a growing knowledge about attachment has helped psychodynamic work move towards a more dynamic and interconnected way of understanding working models of self and others. These trends are also observable in social and personality science when trying to explain why people do what they do. While historically the predominant question of personality research was whether to focus on the situation/context or the person, significant evidence has now accumulated for both types of explanations (see Furr & Funder, 2018 for a review). As a result, contemporary social and personality psychologists tend to focus their energy on how best to explain the dynamic interaction that unfolds between the person and their context, and how to account for the fact that human behaviour contains aspects that are both stable and dynamic (Baumert et al., 2017; Corr & Matthews, 2009; Jayawickreme et al., 2021).

Early social-cognitive models (e.g., Bandura, 1999; Mischel & Shoda, 1995) were the first to attempt these feats, and have laid the foundation for more complex social-cognitive models of personality to develop (e.g., Blum et al., 2021; Fleeson & Jayawickreme, 2015). The growing prevalence and relevance of social-cognitive models highlights the productiveness of explanations of human behaviour that allow for integration, rather than separation, between different ways of understanding (Baumert et al., 2017; Jayawickreme et al., 2021). Perhaps unsurprisingly, social cognitive models have been increasingly incorporated into interpersonally-based social and personality work as they lend themselves exceptionally well to explanations that highlight the importance of both self and others (Anderson et al., 2002; Baldwin, 1997).

Early Social-Cognitive Models: Cognitive Affective Personality System (CAPS).

Mischel and Shoda's (1995) seminal paper on the CAPS theory of personality remains highly

influential today (e.g., Baumert et al., 2017; Fleeson & Jayawickreme, 2021; Jayawickreme et al., 2021). The paper highlighted a key paradox in human behaviour. The averaging of individual's behaviours across situations produces a reliable and predictive "trait" of how people tend to act, but does nothing to explain or predict the significant variability observed in a given individual's behaviour from one situation to the next. Contrary to historical trait approaches, which had tended to see this variability as "error" or "noise" (Fleeson, 2001), Mischel and Shoda (1995) proposed that social-cognitive mechanisms could help explain why an individual acted a specific way in a given situation. That is, they believed that within-person variability observed in behaviours across situations was in fact reliable and could be predicted.

In particular, the CAPS theory argued that certain features within a specific situation will be psychologically relevant to a person given their past experiences. These psychologically relevant features, if present, will reliably activate an internal cognitive and affective reaction within the person that then triggers a typical behavioural response. Their theory proposed that these "if-then" behaviour signatures were a nomothetic process that occurred across individuals and situations. However, they also acknowledge that what specific features of a situation would be psychologically relevant, and the specific ways these features would be interpreted, would be unique to each individual's idiographic past experiences. Since their seminal paper, the CAPS theory has served as a jumping off point for the many contemporary social-cognitive theories of personality. A lasting legacy of the theory has been an increased focus on specific features present in a situation that can trigger person-specific interpretations and subsequent behaviours (e.g., Fleeson, 2001; Fleeson & Nofle, 2009; Funder, 2008; Kenrick & Funder, 1988).

Contemporary Social Cognitive Models: Whole Trait Theory. While CAPS theory highlighted how social-cognitive mechanisms contribute to a given person's behaviour in a

specific situation, it did not provide a clear road map for how and if traditional trait theory could be understood in tandem with social cognitive mechanisms (Jayawickreme et al., 2021). Trait theory had previously established that behaviour between people is quite consistent when aggregated across moments and situations (Baumert et al., 2017, 2019). As a result of this observation, a highly replicable hierarchy of traits has been derived (Ashton et al., 2014; Costa & McCrae, 1985), and these traits had been found to be strong predictors of important life outcomes (e.g., Isawa et al., 2008; Nofle & Robbin, 2007; Ozer & Benet-Martinez, 2006; Roberts et al., 2007). However, while trait theory had established a reliable description of traits and their correlates, a clear understanding of what exactly constituted these traits, and why or how individual differences in these traits developed was still lacking in traditional trait theory. Fleeson and Jayawickreme's (2015) Whole Trait theory was developed to help better explain the nature of traits through consolidating knowledge from both social-cognitive and traditional trait approaches.

Traits as a Density Distribution of States. Fleeson (2001) started to address what exactly a trait is by operationalizing traits as the consistent expression of specific behaviours over time and context. For example, high trait extraversion was operationalized as more frequent engagement in behaviours such as talkativeness or assertiveness. Using experience-sampling methodology, Fleeson (2001) examined how often individuals engaged in specific state personality behaviours over a period of two weeks. This initial research had two key findings. First, it was found that on average, participants in the study displayed very low consistency in their state enactments of personality from one hour to the next. In one hour, someone might act very extroverted, and in the next, not extroverted at all. In fact, within-person variation in state personality - as measured by a given individual's average standard deviation in behaviour over

the two-week period - was generally larger than between-person variation (Fleeson, 2001).

However, the second key finding of the study helped make sense of these seemingly contradictory results. Fleeson (2001) found that the mean of a given person's state personality behaviours in the first week were highly correlated to the mean of their state personality behaviours in the second week. This finding suggested that there were reliable individual differences in people's personality when state behaviours were averaged over time.

From this research, Fleeson (2001) proposed that traits should be understood as a density distribution of states to help make sense of both the high-within person variability and the between-person differences observed in state personality. Fleeson argued against having a single score to represent a personality trait, and instead noted that a more valid and fulsome description of trait personality was achieved by calculating the parameters of a given person's distribution of personality states over time. The mean of this distribution represented the consistent between-person differences observed in state personality; however, the variability and other parameters of the distribution such as skew, kurtosis, max, and min represented the high degree of within-person variability that also exists in state personality. Through proposing traits as density distributions of states, Fleeson (2001) provided a way to integrate past findings on variability in state behaviour with the findings on stability in trait personality.

Whole Trait Theory. In Whole Trait Theory, Fleeson and Jayawickreme's (2015) further developed their novel conceptualization of personality traits. They argued that "whole" traits are composed of two components. The first component describes what traits are. Based on past research (e.g., Baird et al., 2006; Church et al., 2013; Fleeson, 2001; Fleeson & Gallager, 2006; Fleeson & Law, 2015), Whole Trait Theory argues that personality traits are distributions of state personality behaviours, which contain both variability and consistency. The second component

of the theory then explains how personality traits come to be enacted. Given that traits are conceptualized as being a density distribution of states, Whole Trait Theory focuses on explaining why certain state behaviours are enacted in specific situations. Through integrating social-cognitive theory, the theory asserts that an individual's interpretation of specific contextual cues in a given situation results in specific state behaviours being enacted. Therefore, by identifying the factors that influence the interpretation of contextual cues, within-person variability and between-person differences in state personality behaviour can be explained (Fleeson & Jayawickreme, 2021).

Whole Trait Theory has identified several nomothetic factors that contribute to the way individuals interpret, and thus respond to, contextual cues in their environment. Firstly, Whole Trait Theory proposes that a key factor that contributes to the interpretation of contextual cues is goal pursuit. Based on the specific goals people have in a given situation, individuals will interpret contextual cues in certain way and engage in certain state behaviours in order to achieve specific desired consequences or to avoid specific undesired consequences. Indeed, research has confirmed that goal content does predict state personality behaviours (McCabe & Fleeson, 2012). For example, when an individual endorses having more extraversion-related goals in a specific situation, they are more likely to engage in state extraverted behaviours than other types of state personality behaviours (McCabe & Fleeson, 2016). Specific goals are thus thought to underlie the enactment of state behaviours in specific situations, and over time, the consistent enactment of certain goals and subsequent state behaviours comes to make up trait personality.

A related factor that is believed to contribute to an individual's interpretation of contextual cues is the specific contextual cues themselves. Certain contextual cues tend to be interpreted in similar ways across individuals, and thus seem to more easily afford certain

interpretations. For example, the friendliness of others is a characteristic that has been shown to reliably result in higher state agreeableness in self, whereas structured situations prompt more state conscientious behaviour (Fleeson, 2007). Nonetheless, it is impossible that all contextual cues will be interpreted in the same way across all people, and indeed, at their core, interpretations of contextual cues are idiographic. For example, although on average, most people tend to respond to the friendliness of others with more state agreeable behaviours, approximately 25% of people show an opposite pattern whereby others' friendliness prompts less agreeable behaviour, suggesting a different interpretation of what 'friendly' means to these individuals (Fleeson, 2007; Fleeson & Jayawickreme, 2021).

Taken together, Whole Trait Theory highlights a dynamic and active interaction between the presence of contextual cues and subsequent interpretations and behaviours. The presence of specific contextual cues will help inform what goals an individual decides to pursue in that situation, which will then influence the way these specific cues are interpreted and responded to by the individual. In addition, once enacted, state behaviours result in certain consequences, which can cause new contextual cues to emerge. An interactive feedback loop is thus created between the environment and the individual's personality.

Relational Building Blocks for Body Image. In a similar way to how psychodynamic-interpersonal approaches highlight that the self is best understood in relationship to others, social-cognitive approaches in personality demonstrate that individual traits are also contextualized (Furr & Funder, 2021). A similar implication is thus present across both bodies of work: individually-based constructs, such as the self or personality, are not uniquely contained within the individual. These converging bodies of evidence suggest that body image, which is thought to be both a self-attitude and an individual trait, is likely also best understood in context.

Perhaps more importantly, though, social-cognitive approaches to personality demonstrate how stable individual traits and dynamic contextually-based states are synergetic parts of one process rather than separate constructs. Contemporary personality work underscores that there is no true separation between context and individual, or between stable and dynamic. In fact, stable individual traits arise from aggregating dynamic changes in specific contexts (Fleeson & Jayawickreme, 2021). This comprehensive view of personality has several potential implications for body image. Firstly, in line Schilder's (1935/50) original understanding of body image, the boundaries between an individual's body image and their interpersonal relationships may be much more porous and interconnected than contemporary body image conceptualizations currently portray. Secondly, personality research provides ideas for how body image researchers could begin to integrate state and trait methods as well as contextually- and individually- anchored theories. Rather than studying body image through these separate theories and methods, blending different ways of measuring and understanding body image may allow for a much "fuller" picture of body image to reveal itself once again.

Relational Building Blocks: Interpersonal Cognition

Whole Trait's theory conceptualization of traits has had a significant impact on psychology (e.g., Church et al., 2013; Debusscher et al., 2016; Dweck, 2017; Grossman et al., 2020; Hopwood, 2018). Fields outside of personality science have started to integrate these ideas, and have their own unique contributions to the understanding of why individuals act how they do. In particular, more work is being done to try and more clearly specify what particular types of situations, goals, and social-cognitive mechanisms appear to be important for determining how an individual will behave in a given moment. In response to these questions, a growing body of research has determined that interpersonal situations, goals, and social-

cognitive processes have a particularly salient impact on within-person variability (see Baldwin, 2006 for a review). As a result, a distinct field of work has emerged which identifies as studying interpersonal cognition as opposed to social cognition (Fitzsimmons & Angerson, 2013). Rather than investigating how broad social contexts or members of social groups shape individual cognitions and behaviours, interpersonal cognition focuses on the influence of specific relationships, namely, important relationships. Research on interpersonal cognition thus has a blended interest in important relationships and social cognitive processes and so it can provide valuable ideas for how relational conceptualizations of body image could also work towards integrating these two bodies of knowledge.

The Interpersonal Situation and Interpersonal Motivations: Contemporary Integrative Interpersonal Theory. With increasing debate over the current diagnostic system in clinical psychology, and with particular controversy surrounding the current diagnostic classification of personality disorders (e.g., Skodol, 2005, 2012; Wright et al., 2022; Widiger & Hines, 2022), clinical psychologists have started to integrate new interpersonal and personality theory to provide a more valid and reliable conceptualization of personality disorders (Hopwood, 2018; Wright et al., 2022; Wright & Ringwald, 2022). Hopwood (2018) argues that personality science has provided the blueprint for the nomothetic processes of personality development through Whole Trait Theory and other dynamic theories of personality (e.g., Back et al., 2011; DeYoung, 2015; Rauthmann, 2021). That is, personality should now be thought of as originating from within-person variability that is driven by social-cognitive mechanisms within specific situations. However, Hopwood (2018) argues that clinical/interpersonal work can help build upon these ideas by helping to further specify the within-situation dynamics that may ultimately contribute to longer-term stable personality patterns.

This merging of contemporary personality science and clinical/interpersonal theory has resulted in the Contemporary Integrative Interpersonal Theory (CIIP). The CIIP provides a set of principles to help explain within-situation variability in state behaviours. Firstly, given the increasingly large body of literature on the importance of relational experiences in adaptive human development (e.g., Benjamin, 2002; Hopwood et al., 2013), the CIIP argues that interpersonal situations specifically will be one of the most important contexts within which to study within-person variability (Wright et al., 2021). Similar to dynamic personality theories, the CIIP also argues that state behaviours within interpersonal situations are largely influenced by the pursuit of specific goals. However, CIIP also narrows down what types of goals are likely to influence state behaviours. Guided once again by a vast body of work on interpersonal theory, the CIIP states that interpersonal behaviour is largely driven by agentic and communal motives (e.g., Abele & Wojciszke, 2007; Bakan, 1966; Gebauer et al., 2013; Locke, 2000; Trapnell & Paulhus, 2012). These motives are not thought to be mutually exclusive but rather are thought to exist together in two-dimensional space, as represented by the empirically derived interpersonal circumplex (Kiesler, 1996; Leary, 1957). In line with Whole Trait Theory and the Cyclical Maladaptive Pattern Model, a dynamic feedback loop is thought to exist between an individual's goal-driven behaviour and the other person's response. That is, the consequences of an interpersonal behaviour, in particular whether it results in the other person satisfying or frustrating one's desire for communion or agency, will help to determine whether or not this interpersonal behaviour is repeated in the short- and long-term. In addition, certain interpersonal situations, and thus certain specific others, will provide different affordances for one's goals to be satisfied (Hopwood, 2018). As a result, a given individual should exhibit variability in their interpersonal behaviour across different people.

Taken together, the CIIT provides a set of principles to help predict whether one's interpersonal goals will be met within a given interpersonal situation and thus whether adaptive personality functioning will develop. Adaptive personality functioning occurs when individuals are able to accurately perceive different interpersonal situations, and thus flexibly choose what type of interpersonal goals to pursue. For example, interacting with one's boss versus interacting with one's romantic partner would typically result in the pursuit of different interpersonal goals. When an individual is able to accurately perceive the other person, and thus choose appropriate interpersonal goals, these goals are more likely to be met. When interpersonal motives are satisfied, it reinforces the individual's choice of goals and subsequent interpersonal behaviours within that specific situation, which over time will result in a dynamically stable personality style.

On the other hand, maladaptive personality functioning occurs when interpersonal goals and behaviours are not properly attuned to the interpersonal situation. Often this occurs when an individual's choice of interpersonal goals is either too rigid (always pursuing the same interpersonal goals across every situation) or too disorganized (always pursuing different interpersonal goals across every situation). As a result, the individual's interpersonal goals are less likely to be consistently met. However, because an individual may not know of any other way to have their goals more consistently met, and because their goals may be initially or intermittently met in certain relationships, they continue to exhibit the same interpersonal pattern. Over time, this pattern will develop into either a chronically rigid or chronically unstable personality style.

Interpersonal Mechanisms: Transference & The Relational Self. While the CIIT sheds light on the importance of interpersonal situations and the role of higher-order motivations

for communion and agency, Andersen and colleagues work on transference and the relational self allows for an even more fine-grained understanding of *why* people act how they do in specific interpersonal situations (Andersen et al., 2016; Andersen & Saibay, 2006). In particular, why do some individuals inaccurately perceive their interpersonal situations and thus choose inappropriate interpersonal goals and actions? Through illuminating the process and consequences of a specific social-cognitive mechanism, their work helps to answer this question.

The historical roots of Andersen and colleague's program of research can be traced back to Freud's original concept of transference (Freud, 1912/1958). Freud postulated that representations of significant others from early childhood are stored in an individual's memory and may influence relationships with their psychanalyst and with others in everyday life. While a relational focus has largely replaced Freud's drive theory in contemporary psychodynamic theory (Curtis, 2020), the concept of transference has remained influential in contemporary relational psychodynamic work (Luyten et al., 2017), and Andersen and colleagues' body of empirical work has further validated the process of transference. Through integrating social-cognitive and interpersonal theory, this body of research has been able to theoretically clarify, and thus experimentally test, how transference occurs in everyday life.

Andersen and colleagues conceptualize transference from a person-situation interaction model with a specific focus on interpersonal interactions (Andersen et al., 2016). They propose that when someone interacts with another person, psychologically-relevant characteristics of the other person can trigger the process of transference. The specific characteristics deemed to be psychologically-relevant are thought to be idiographic; that is, different characteristics will be psychologically relevant for different people. However, in general, research has found that characteristics of the other person that are perceived as being similar to the characteristics of a

significant other in one's life consistently trigger the process transference. These characteristics of the other person activate the mental representation of one's significant other in memory. As a result, the other person becomes viewed as similar to one's significant other (Andersen & Baum, 1994; Andersen & Cole, 1990).

An important characteristic of Andersen and colleagues' conceptualization of transference is that each significant other is thought to hold their own unique mental representations. Andersen and colleagues (2013) define significant others as "any person who is or has been deeply influential in one's life and in whom one is or once was emotionally invested" (pg. 2). Thus, people do not hold one general view of significant others, as is sometimes suggested by work on trait attachment styles, but instead hold multiple relationship-specific representations for each of their significant others (e.g., mother, father, close friend, sibling, romantic partner; see Baldwin et al., 1996 for a review). Relatedly, people are not thought to hold one general view of self. Given the interconnected relationship between one's view of self and one's view of others, a unique representation of the self, known as the relational self, is believed to be stored with each significant other representation.

When one's mental representation of a significant other is activated, this unique self-with-other representation will also be activated. As such, rather than acting similarly across all relationships, Andersen and colleagues propose that we think, feel, and act in unique ways with different people because a different version of our relational self is activated. For example, being with someone that has some similar characteristics to one's mother would trigger not only the mental representation of one's mother to be activated with that person but also the self-with-mother representation. However, being with someone who has similar characteristics to one's best friend, would trigger a different version of the relational self.

The Process of Transference. To empirically investigate the process of transference, Andersen and colleagues have used clever experimental methods. Typically, a two-session within-person paradigm is used. In the first session, participants describe all the significant others in their life by writing out sentences about their significant others' attitudes, beliefs, behaviours, etc. These sentences are then rank-ordered by the participant based on how closely they align with each significant other's key features. A second session then occurs weeks later, and participants are told they will be interacting with a number of unknown people and they are given brief descriptions of these other people. In the active condition, some people are described as having some characteristics that are subtly similar to one's significant other (in addition to other filler characteristics that are different from the significant other) whereas other people are described as having no characteristics similar to their significant others. Importantly, a yoked control condition is also employed where control participants are told they will be interacting with some people who are described as having characteristics that are subtly similar to *another* participant's significant others, and other people are described as having no similar characteristics to *another* participant's significant others. This allows the researchers to ensure that it is not the characteristics of any significant other that trigger transference but only those characteristics that are perceived as similar to one's own significant others.

A vast body of empirical literature has used variations of this paradigm to validate and further clarify the process of transference, and generally speaking, these studies have found strikingly consistent results (see Andersen & Chen, 2002; Andersen & Saribay, 2006; Chen et al., 2013 for reviews). Only when interacting with others who are perceived as similar to their own significant others do participants inaccurately "transfer" parts of their relationship with their significant to the other person. For example, participants incorrectly but confidently remember

characteristics about the other person that were not provided in the description but are similar to one's own significant other (Andersen & Baum, 1994; Berk & Andersen, 2004). Participants also report greater liking with others who are subtly similar to significant others with whom they have held a generally positive evaluation as compared to significant others they negatively regarded. Similarly, when a new other resembles a significant other who was abusive, participants report greater dislike, mistrust and indifference towards this new person, as compared to when a new person resembles a non-abusive significant other (Berenson & Andersen, 2006). Taken together, this research shows how, through transference, individuals will come to believe that other people are more like their significant others than they actually are, and that they will also evaluate the other person similarly to how they evaluate their significant others (Chen et al., 2013).

A large body of evidence has also demonstrated that transference tends to operate largely outside of conscious awareness and is relatively automatic (Andersen et al., 2005; Glassman & Andersen, 1999). Empirical work has shown that this automaticity appears to occur in part because significant-other representations are chronically accessible (Andersen et al., 1995; Chen et al., 1999; Chen et al., 2007). That is, significant-other representations are thought to be in a chronic state of readiness, and thus they can be activated relatively automatically. Theoretical explanations for this chronic accessibility focus on how familiar people are with their significant others, how much people think of their significant others, and how relevant significant others are to the self (Chen et al., 2013). However, in line with social-cognitive theories, specific contextual cues are thought to play a role in when exactly these representations are activated. Experimental studies have supported the idea that a reliable contextual cue that activates significant-other representations is the perception of similar characteristic between a new person and one's significant-other (Chen et al., 2013; Chen & Andersen, 1999).

The Concept of the Relational Self. A key aspect of Andersen and colleagues' theory of transference is the concept of the relational self. The relational self posits that transference will not only impact the working model of other that is activated when interacting with someone who resembles a significant other, but will also influence the working model of self. The concept of the relational self is built upon a long history of work that has highlighted both the multiplicity of the self and its interpersonal nature (Chen et al., 2013). When William James first introduced the idea of self, he in fact conceptualized it as having many versions and as being relational in nature (James, 1890). He coined the term 'the social self' noting that: "[A person] has as many different social selves as there are distinct groups of persons whose opinion he cares about" (James, 1890, pg. 282). The idea of an interpersonally-based and dynamic self was then further developed by symbolic interactionists within sociology (Cooley, 1902; Mead, 1934). For example, Cooley's concept of the "looking-glass self" described how the self is "influenced by the imagination of our appearance to the other person, the imagination of the judgement of that appearance, and some sort of self-feeling, such as pride or mortification" (Cooley, 1902, p.184).

In psychology, a focus on the self initially accompanied research on personality traits in the 1960s and 1970s. In line with the contemporaneous work on dispositional personality traits, the original psychological focus on the self differed from more historical self theory in that it concentrated more heavily on fixed attributes of the self that were thought to stable and consistent over time and contexts (Blood 2005; Leary & Tangney, 2012). However, when social-cognitive theories began to shift the tide towards theories of personality dynamics (Baumert et al., 2017, 2019), theories of dynamic selves triggered by interpersonal contextual cues became more prominent in self psychology once again (Andersen & Chen, 2002; Aron et al., 1991;

Baldwin, 1992; Chen et al., 2006; Markus & Cross, 1990; Ryan & Deci, 2012; Scott et al., 2022).

In Andersen and colleagues' theory of the self, the term 'the relational self' is used given the long history of work that has demonstrated the importance of significant others in shaping one's view of the self. People's personal emotions and motivations can often be clearly traced back to how significant others have responded to them in the past (Chen et al., 2013). Andersen and colleagues thus conceptualize the self as being relational above all else, suggesting that for each significant other in their life, an individual will develop a distinct version of their self. Each version of the relational self is thought to contain aspects of the self that have traditionally been activated when a person is with their significant other. For example, the relational self activated when someone is with their best friend will contain specific qualities of the self (e.g., sociable, compassionate), role-based aspects (e.g., friend role), evaluations of the self (e.g., positive self-evaluation), expectations of acceptance or rejection from other (e.g., expected acceptance from other), emotions experienced with other (e.g., contentment), goals and motives one sought with the significant other (e.g., communion), and interpersonal behaviours (e.g., talkative, generosity). The relational self thus contains both nomothetic and idiographic aspects. Some aspects are informed based on one's lived experiences with a specific significant other and other aspects may be based in sociocultural norms, such as what is expected of a "friend" in given cultural context.

A related and parallel way of understanding the relational self, comes from Baldwin's (1992) work on relational schemas. Baldwin also postulated that distinct representations of the self are stored with different significant-other representations, which he described as one's relational schema. Relational schemas were thought to contain specific relational expectations

that were learned over one's history with a significant other, and Baldwin characterized these expectations as having if-then contingences. Over their history with a significant other, a person learns: if I act in this way, then I will get this response. These interpersonal expectations then dictate how the person will act with that significant other in the future, forming an "interpersonal script" between them and their significant other. For example, a person may have learned over repeated interactions that if they talk with a friend about important things, then their friend responds with interest and empathy. This information will thus become a part of their interpersonal script with their best friend and will influence how they act with their friend in the future.

The Consequences of the Relational Self. Given the repertoire of selves available for any given individual, not all these versions of self will be activated at all times. Instead, certain versions of the relational self become active with specific people through the process of transference. In Anderson and colleagues' theory of the relational self (Chen et al., 2013), when transference occurs, a specific significant representation of the other should become active, and aspects of the self should also shift to correspond to how the self is typically experienced with that significant other.

Experimental research has largely supported this theory. For example, research has demonstrated that when interacting with a new person who resembles a positively regarded significant other, participants report greater positive regard for the new other, yet also report greater expectations of acceptance from the new other (Andersen et al., 1996; Reznik & Andersen, 2004), more positive self-evaluations (Hinkley & Andersen, 1996), more positive affect (Andersen et al., 1996), and a greater affiliative behaviour towards the new other (Kraus et al., 2010). These results suggest that when participants have positive regard for a significant

other, this positive regard transfers not only to the new person, but also to how one feels about oneself when with that person, and how one feels about the relationship in general. These positive transference effects to other, self, and relationship also seem to be quite powerful. For example, in one study, participants were told they would be interacting with a new person who either did or did not resemble their significant other, and who was a member of either an outgroup or ingroup political party. Strikingly, and contrary to other research on ingroup/outgroup dynamics, participants showed the greatest affiliative behaviour towards participants who resembled a positively regarded significant other regardless of whether they were a member of an outgroup or ingroup political party (Kraus et al., 2010).

Despite the apparent strength of positive transference effects, interesting variations on this pattern have also been observed. In particular, someone can positively regard a significant other but also can experience different versions of the self with that other. For example, self-discrepancy theory outlines how individuals can experience different versions of themselves when they perceive they are falling short of a parent's expectations (Higgins, 1987, 1997). The theory states that if someone feels they are falling short of parental expectations that they also hold themselves, that is, falling short of an 'ideal self,' affective experiences of dejection are more likely to be experienced. In contrast, if someone perceives that they are falling short of parental expectations that they do *not* also hold themselves, that is expectations for an "ought" self, affective experiences of agitation are more likely. These unique experiences of self should also be observable through transference and indeed experimental has supported this hypothesis. In one study, participants generally reported more positive evaluations of new people who resembled positively regarded parents; however, they also experienced different types of negative affect. Participants either reported greater dejection or hostility depending on whether

the new other resembled a parent who held expectations for an ideal or ought self respectively (Reznick & Andersen, 2007).

Other more nuanced experiences of significant relationships have also been shown to transfer to new relationships. For example, someone may positively regard a significant other yet also experience chronically unmet needs with them, such as not receiving as much affection as they desire. Experimental research has shown that when participants interact with a new person who resembles a positively regarded significant other with whom they have unmet needs, participants report greater feelings of hostility (Berk & Andersen, 2008). Such feelings of hostility are not observed when participants interact with a new person who resembles a positively regarded significant other with whom they do not have unmet needs. This affective experience also appears to have interesting downstream effects on interpersonal goals. Namely, participants interacting with new others who resembled a significant other with whom they had unmet needs not only reported greater hostility but were also more likely to act in a way that elicited acceptance from the new other (Berk & Andersen, 2008). This suggests that participants' motivation to satisfy their unmet needs may have also transferred to these new people.

Relational Building Blocks for Body Image. Altogether, Andersen and colleagues' program of research on transference and the relational self is an exemplar of interpersonal cognition work. It highlights how interpersonal-psychodynamic theory and personality science can be integrated to provide an empirically-strong and theoretically-rich understanding of how our important relationships shape how we relate to others and ourselves. As a result of their integrative approach, this program of research provides a unique balance of nomothetic concepts such as transference and the relational self, and idiographic content, such as the specific shifts in self, other, and relationship representations that occur with new people. For body image

researchers, interpersonal cognition research could act as a model for how integration can occur between areas of knowledge that may be informed by different epistemologies. Namely, a similar process of integration may be possible between psychological body image work, which tends to focus on empirically-derived constructs and theory, and critical-feminist work that is more often informed by poststructuralist theory and grounded in subjectively-based lived experiences.

Interpersonal cognition research also provides important content for body image researchers to consider. The salience of the transference effect further legitimizes the importance of significant others in individual lives and the empirical research on the social-cognitive process of transference sheds light on transference as a specific mechanism that may drive within-person variability and stability in interpersonal situations. It stands to reason that a similar process may be at play with body image as well. That is, a given individual may be sensitive to a unique configuration of relationally-based cues, such as other's warmth and dominance, which can then trigger specific types of thoughts, feelings, and actions towards their body. Idiographic investigations into given individuals' histories with their important others' thus may offer a nomothetic entrance point for predicting (and for understanding) what these cues may be and what type of influence they may have on a given individual's body image experiences.

Dissertation Objectives

The theoretical and empirical literature summarized above outlines how the original conceptualizations of body image as an interconnected and contextualized phenomenon have become more disjointed both within psychological body image research and across psychological and critical-feminist approaches. The review above also highlights how a

relational conceptualization of body image may be one way to bring these disjointed viewpoints back together to form a more integrated understanding of body image overall.

New productive bodies of knowledge, such as interpersonal cognition, have emerged from the realization that relationships are an intuitive and fruitful place of intersection for research. It appears that relationships may also be a natural and promising common ground for body image research. Through incorporating integrative relational literature into body image work, work within body image may also become more cohesive and synergetic. My program of research takes preliminary steps towards this ultimate goal by first providing evidence for the relevance and usefulness of an integrative relational conceptualization of body image in general (Waring & Kelly, 2020). Subsequently, my relational conceptualization of body image was examined in areas where disjointed understandings of body image are currently more prevalent. First, the usefulness of relational body image was explored across the subfields of state and trait approaches to body image (Waring et al., 2022), and then its relevance was investigated across psychological and critical-feminist body image approaches (Waring & Kelly, 2023).

First-Order Objectives

Relational Body Image as a Within-Person Construct. The first objective of my program of research, addressed through Study 1, was to provide preliminary evidence for a relational conceptualization of body image. Through integrating sociocultural body image research with interpersonal research on the relational self (e.g., Chen et al., 2006) and relational schemas (e.g., Baldwin, 1992), a conceptualization of relational body image was derived. Close relationships were hypothesized as being very influential to an individual's body image; however, rather than examining the aggregate influence of significant relationships (e.g., Tiggemann, 2011, 2019), specific relationships were hypothesized as differentially influencing a

given individual's body image (Waring & Kelly, 2020). As such, an in-lab procedure was created that allowed for the identification and gathering of information about each participant's idiographic social network rather than using existing trait measures of sociocultural influences.

Building on relevant research on state-based body image experiences (Fuller-Tyszkiewicz, 2019), relational body image was conceptualized as being variable and contextually-influenced within a given individual (Waring & Kelly, 2020). It was also predicted that within-person variations in relational body image may be triggered by known social predictors of state body image including appearance-related talk by other people (e.g., Kelly et al., 2016; Miller et al., 2022; Shannon & Mills, 2015), and appearance-related comparisons with others (e.g., Fardouly et al., 2017; Leahey et al., 2011; Rogers et al., 2017). However, relational body image also differs from state-based body image research. Most importantly, rather than capturing changes in within-person body image over time, relational body image represents the differences in body image an individual experiences over their specific relationships. Relatedly, and in line with interpersonal cognition research, the most salient triggers for within-person variations in relational body image are thought to be the specific characteristics of important others (e.g., Chen et al., 2013). Thus, relationship-specific measures of body image and of important others' characteristics were created rather than using pre-existing time-anchored (e.g., Cash et al., 2002) or situation-anchored (Cash, 2002) within-person body image measures.

Ultimately, then, the objective of my first study was to test the potential of relational body image as a novel way of conceptualizing and measuring within-person differences in body image. To test this objective, I examined: (1) whether a given individual's body image varies as a function of their specific relationships; (2) whether a given individual perceives their significant

others as differing from one another on specific characteristics; and (3) whether these perceived differences in others' characteristics predict relational body image.

Individual Differences in Relational Body Image. The second objective of my program of research was to explore whether relational body image could help to illuminate how within-person changes in body image may shape and interact with trait body image. This second objective was addressed in Study 2 (Waring et al., 2022). In body image and other fields, examining the interaction between state and trait measures is typically achieved through examining individual differences in within-person variability. Although past research in body image has found that individual differences in within-person variability predicts maladaptive trait body image and eating (Melnik et al., 2004; Rudiger et al., 2007), recent studies have failed to replicate these associations (Fuller-Tyszkiewicz et al., 2015; Fuller-Tyszkiewicz et al., 2018; Fuller-Tyszkiewicz, 2019; Lattimore & Hutchinson, 2010; Roger et al., 2017). These inconsistent findings have left gaps between trait and state body image research and have prevented the development of a unified theory of body image that includes both within-person variability and between-person differences.

To better understand the inconsistent findings on body image research investigating individual differences in within-person variability, I once again looked to interpersonally-based work outside of body image. Through integrating social-cognitive work on personality dynamics (Baumert et al., 2017, 2019; Fleeson & Jayawickreme, 2021), I postulated that the measurement of within-person variability across theoretically-relevant contexts, rather than across non-theoretical and decontextualized units of time, may allow for individual differences in within-person variability to be more consistently detected. As relationships are known to influence body image, I hypothesized that relational body image may offer a contextually-sensitive and

theoretically-relevant way to measure individual differences in within-person variability in body image. In addition, through integrating more developed literature on within-person variability in personality and affective dynamics, several other novel methodological and statistical techniques were incorporated into the study design to overcome other potential limitations of past body image variability research.

In sum, the objective for my second study was to examine whether the degree of within-person variability in relational body image an individual experiences predicts their trait body image in robust, meaningful ways. I hypothesized that a general pattern would emerge in which greater within-person variability in relational body image would positively predict other indicators of maladaptive trait body image. In obtaining support for this hypothesis, I hoped that a relational conceptualization of body image could start to illuminate a more integrated path forward for research on within-person variability and between-person stability in body image.

Relational Body Image as an Idiosyncratic and Systemic Experience. The final objective of my program of research was to examine the ways in which critical-feminist theory and methods could be used to inform relational conceptualizations of body image, which was addressed in Study 3 (Waring & Kelly, 2023). While an integration of interpersonal and psychological body image research had previously helped to inform more nomothetic aspects of relational body image, I believed that an integration of interpersonal and critical-feminist work may help to illuminate the more idiosyncratic and systemically-based aspects of relational body image. To achieve this objective, a qualitative investigation into body dissatisfied women's subjective experiences of relational body image was conducted. I hoped that the results of this study would provide a clearer blueprint for how relational conceptualizations of body image may

provide a space for critical-feminist understandings and psychological body image work to intersect.

Second-Order Objective

Integrating Theory and Methods Through Relationships. While each of my dissertation studies had specific aims to help develop the conceptualization of relational body image, across all studies, integrating theory and methods from other fields was a common mechanism that allowed for these more specific aims to be achieved. My program of research may be best described as offering a novel amalgamation of others' theories and methods rather than offering any truly novel contribution. My work is certainly not the first to take this approach (e.g., McWilliams, 2017) and indeed all research is necessarily built upon and with others' work. Nonetheless, a continued risk to academic psychological work is the tendency to separate into distinct subfields with limited theoretical or methodological continuity (Toomela, 2014). One (negative) consequence of this fragmentation is that researchers are continuously re-inventing the same work under a different name and not benefiting from each other's progress and mistakes. In many ways, then, my program of research is less about developing a 'new' construct in body image, and more about trying to promote further cohesiveness within the body image field by incorporating theories and methods from both within and outside of it (Toomela, 2014). Yet certain ideas also appear to lend themselves more easily to integration than others, and I believe that it is a worthwhile venture to try and identify what these ideas may be. In my and many others' work, social relationships have consistently proven to be a point of integration (e.g., Baldwin, 1992; Gilbert, 2005; McWilliams, 2020; Tasca et al., 2021). Therefore, beyond investigating the construct of relational body image itself, the higher-order objective of my

dissertation was to humbly highlight potential paths for further integration within body image research (and beyond) through relationally-focused work.

Study 1: Relational Body Image: Preliminary Evidence That Body Image Varies Within a Person from One Specific Relationship to Another

Social factors are considered among the most important contributors to body image (Fredrickson & Roberts, 1997; Myers & Crowther, 2009; Tiggemann, 2011, 2019). Trait body image research, which views body image as a relatively stable and internalized set of attitudes (e.g., Cash, 1990; Menzel et al., 2011), has found that individuals differ from one another in their body image according to the overall characteristics of their family members and peers (e.g., Thompson, Heinberg, et al., 1999). For example, individuals who rate the people in their life as being highly accepting of their body, on average, report more positive body image than those who experience others in their life as being generally less body accepting (Avalos & Tylka, 2006).¹ Given that body image also has state-like properties (e.g., Cash et al., 2002), other research has examined whether body image levels may vary within a person over time based on the social factors present (Jones et al., 2014; Kelly et al., 2016). Studies have indeed found that the relative presence of certain social factors in sampled time periods, such as how much an individual is exposed to others talking negatively about their bodies, contributes to an individual's body image in those time periods (see Fuller-Tyszkiewicz, 2019 for a review). Building on these research traditions, the present study sought to highlight a new potential source of within-persons body image variance accounted for by social factors. Specifically, we sought to test the concept of *relational body image*, which we define as the systematic variability in body image an individual experiences across the various people in his or her life. That is, does a given individual typically have more positive body image with Person A than she does with Person B due in part to the differing characteristics these others are perceived to possess?

¹ The other people in an individual's life are referred to throughout the manuscript as "others"

Between- and Within-Persons Variations in Body Image as a Function of Social Factors

Many empirically-based and influential theories of body image have emphasized the importance of social factors (e.g., Avalos & Tylka, 2006; Fredrickson & Roberts, 1997; Myers & Crowther, 2009; Piran & Teall, 2012; Thompson, Heinberg, et al., 1999). Indeed, the widely supported sociocultural, or tripartite, model states that parents, peers, and the media are the three primary sources that contribute to the development of body image and eating attitudes (see Tiggemann, 2011 for a review). In particular, greater perceived pressure to be thin from these three sources has been linked to poorer trait body dissatisfaction and a greater likelihood of eating disturbances (e.g., Thompson, Covert, et al., 1999). More recently, Avalos and Tylka (2006) extended this model to explore the development of positive body image. Their acceptance model posits that perceived unconditional acceptance from others, especially vis-à-vis one's body, contributes to trait body appreciation, which refers to greater unconditional approval of and respect for one's body (Tylka & Wood-Barcalow, 2015), as well as more intuitive eating, which refers to eating in response to physical hunger and satiety rather than mental rules (Tylka & Kroon Van Diest, 2013). Support for this model has emerged in both cross-sectional and longitudinal research (Andrew et al., 2016; Augustus-Horvath & Tylka, 2011; Avalos & Tylka, 2006; Oh et al., 2012). Social network analysis also focuses on how others' characteristics, in particular those in one's social circle, influence an individual's body image. Of note, people with similar weight status are more likely to be within the same social network (Zhang et al., 2018; Fletcher et al., 2010), even in ethnically diverse samples (Lankci et al., 2018). Additionally, individuals whose social networks are made up of more people with a higher BMI are less likely to perceive themselves as being overweight (Ali et al., 2011), which may be due to the decreased opportunity to engage in unfavourable body comparisons (Myers & Crowther, 2009). In sum, the

perceived characteristics of others, including their body acceptance and weight status, both appear to be important social predictors of how individuals view and feel about their bodies.

Nevertheless, it is important to note that all of the aforementioned research on social influences of body image has been conducted at the between-persons level. That is, studies have focused on how individuals differ from one another in their body image as a function of the average characteristics of the people in their life. For example, studies testing the acceptance model use the Body Acceptance by Others Scale (BAOS; Avalos & Tylka, 2006), which asks respondents to report on their perceived body acceptance from family, friends, romantic others, media, and society, and then generates a total score reflecting the average ratings provided across these categories (Avalos & Tylka, 2006). In addition, social network studies have focused on the relationship between a given individual's view of her weight and the average weight across all her social network members (Ali et al., 2011).

While it is valuable information that the average characteristics of the people in an individual's life contribute to her typical body image, it is important to note that such research only highlights the social factors that might explain why one individual differs from another in her typical levels of body image (Cash et al., 2002). Between-persons research does not shed light on the social factors that might make *a given individual* feel more negatively or positively about her body (Fleeson, 2001). That is, we cannot extrapolate from between-persons research that a given individual would, for example, experience more positive body image by spending time with a friend she finds to be more body accepting or of a higher weight status. To generate these sorts of practical implications, it is necessary to conduct research at the within-persons level (Hamaker, 2012; Nezlek, 2012b).

There is a relatively large body of research documenting the within-persons variations in body image that occur as a function of the social factors present during specified time periods (Fuller-Tyszkiewicz, 2019). For example, a given individual feels worse about her body after hearing others engage in “fat talk”, which refers to talking negatively about one’s body or eating (Jones et al., 2014; Shannon & Mills, 2015; Salk & Engeln-Maddox, 2012). Similarly, a given individual reports more body dissatisfaction on days when she spends more time interacting with people who talk about dieting, exercise, and their bodies and less body dissatisfaction on days when she spends more time with people are not body preoccupied (Kelly et al., 2016; Miller et al., 2019). These findings suggest that body image within a given individual may vary from one time period to another according to the social interactions to which she is exposed in these time periods.

Within-Persons Variations in Body Image as a Function of Specific Relationships

We propose that an additional “social” source of within-persons variance in body image lies not in the social characteristics of specific time periods (e.g., the presence or absence of fat talk on a given day), but in the characteristics of the specific *people* in an individual’s life. That is, an individual may feel predictably differently about her body based on the particular person she is with due to her past experiences with and/or perceptions of this person that extend beyond what takes place in a particular interaction. Social psychological research on relationship-specific variations in self-attitudes offer theoretical support for this possibility.

Baldwin (1992) suggested that people develop multiple relational schemas for the various important others in their life. Relational schemas refer to “cognitive structures representing regularities in patterns of interpersonal relatedness [that] include images of the self and other...derived via generalizations from repeated interpersonal experiences” (p.461). Pierce

and Lydon (2001) found support for the notion of multiple relational schemas by finding that people's attachment style – that is, their expectations of, and patterns of interacting with, close others – can be highly variable across their different relationships. Contemporary research on the relational self offers further support for the notion that certain attributes of the self (e.g., dominance, warmth) can arise more or less in a given relationship based on one's memories with and knowledge of that other person (see Chen et al., 2006 for a review). As such, individuals can act, think, and feel predictably different about themselves across their different relationships. It is thus also possible that individuals not only feel a certain way about their body at a global level, or in a given moment in time, but may also feel a particular way about their body in one specific relationship and a different way in another relationship. That is, individuals may experience what we refer to as *relational body image*.

The Current Study

The current study aimed to test the concept of relational body image, which we define as the variability in body image that occurs within a person as a function of his or her specific relationships. Primary objectives were to examine the extent to which: (1) individuals' body image differs across their specific relationships (e.g., with Person A versus with Person B); (2) individuals perceive others in their life as differing from one another on characteristics that are known to predict body image at an aggregate level (e.g., body preoccupation, body acceptance, and body size); and (3) these perceived differences in others' characteristics contribute to participants' body image in their relationships with others. Although we were primarily interested in relationship-specific predictors of body image and eating at the within-persons level, we still wanted to know whether at the between-persons level, participants' networks – that is, the average perceived characteristics of the specific others in their life – meaningfully

contributed to their body image. A secondary objective was therefore to examine whether individuals differ from one another in their body image as a function of the average perceptions they hold of the specific others in their life. This examination would extend past trait research on the contribution of the aggregate characteristics of others on body image (e.g., Avalos & Tylka, 2006; Fletcher et al., 2001).

Our predictor variables were participants' perceptions of others' body image preoccupation, others' body acceptance of the participant, and others' body size discrepancy from the participant. These predictor variables thus all represent the general characteristics that other people in participants' lives could possess to varying degrees, and were chosen because, as reviewed above, they are important social predictors of trait and state body image (e.g., Kelly et al., 2016; Lankci et al., 2018; Myers & Crowther, 2009; Tiggemann, 2019). Body appreciation and intuitive eating were chosen as criterion variables given their theorized links to body acceptance by others in the acceptance model of body image (Avalos & Tylka, 2006). In addition, by assessing the way individuals approach eating in their different relationships, we were able to measure relationship-specific variability in body image-related behaviours, not just attitudes, thereby allowing for a more comprehensive test of our hypotheses. Relatedly, we also included appearance orientation as a criterion variable, which refers to investment in one's appearance (Cash, 2000), as the construct encompasses body image behaviours such as appearance management (Muth & Cash, 1997).

Hypotheses

First, we hypothesized that participants would exhibit relational body image. Specifically, they would report different levels of body appreciation, appearance orientation and intuitive eating across their relationships with specific others. Second, we hypothesized that participants

would perceive the others in their life as varying in their levels of body preoccupation, body acceptance of the participant, and body size discrepancy from the participant.

Our third hypothesis was that at the *within-persons level*, differences in the perceived characteristics of specific others would contribute meaningfully to participants' body image and eating in their relationships. Given the negative within-persons association between exposure to body preoccupied others and body image over time (Kelly et al., 2016), it was hypothesized that: (3a) participants would report less body appreciation and intuitive eating and greater appearance orientation in relationships with others they perceived to be more body preoccupied than the average person in their network; in accordance with the mounting evidence for the acceptance model at the between-persons level (Tiggemann, 2019), (3b) participants would report more adaptive body image and eating in relationships with others whom they perceived as being relatively more accepting of their (the participant's) body; and given society's "thin ideal" and the robust link between unfavorable appearance comparisons and body dissatisfaction (Myers & Crowther, 2009), (3c) participants would report more maladaptive body image and eating in relationships with others they perceived as having a relatively thinner body size than their own.

Finally, our fourth hypothesis tested the *between-persons* contribution of participants' average network characteristics to their body image and eating. We hypothesized that body image and eating would be more adaptive among participants with networks composed of others whom, on average, were perceived as: (4a) less body preoccupied; (4b) more body accepting of participants; and (4c) more similar in size to participants.

Method

Participants

Female-identified participants were recruited for a two-part study exploring social relationships and body image from a large Canadian University. The study was approved by the university's Office of Research Ethics and compensation was course credit or a \$15 Amazon gift card, as determined by the recruiting participant pool. Ninety-six female-identified undergraduate students consented and completed both parts of the study. Nine were removed for failing to comply with the study procedure, leaving a final sample of 87.

Mean participant age in the final sample was 20.55 ($SD = 1.90$) and self-reported height and weight resulted in a mean BMI of 22.47 ($SD = 4.23$). The ethnic composition of the sample was fairly heterogeneous, as is representative of the recruiting university. Thirty participants identified as Southeast Asian (34.6%), 26 as White (30.0%), 17 as South Asian (19.5%), 5 as Black/African/Caribbean (5.7%), 3 as West Asian (3.4%), 1 as Arab (1.1%), 1 as Latin American (1.1%), and 4 participants as Other (4.6%). Sixty-seven participants identified as heterosexual (77.1%), 10 as bisexual (11.6%), 3 as questioning (3.4%), 3 as unlabelled (3.4%), 2 as unsure (2.3%), 1 as lesbian (1.1%), and 1 as gay (1.1%). In the sample, 18 participants (20.7%) self-reported having had an eating disorder (ED) in the past and eight (9.2%) reported having a current ED, only one of whom did not also report a past ED. Of the 19 participants who reported a past and/or current ED, the majority (84.2%) reported that they had not been formally diagnosed by a health care professional. *T*-tests revealed that participants who self-identified as having a past and/or current ED had lower mean intuitive eating scores, body appreciation scores, and body acceptance by other scores compared to participants who did not self-identify

as having a history of an ED, $ps < .05$. They did not differ on any other demographic or study variables.

Procedure

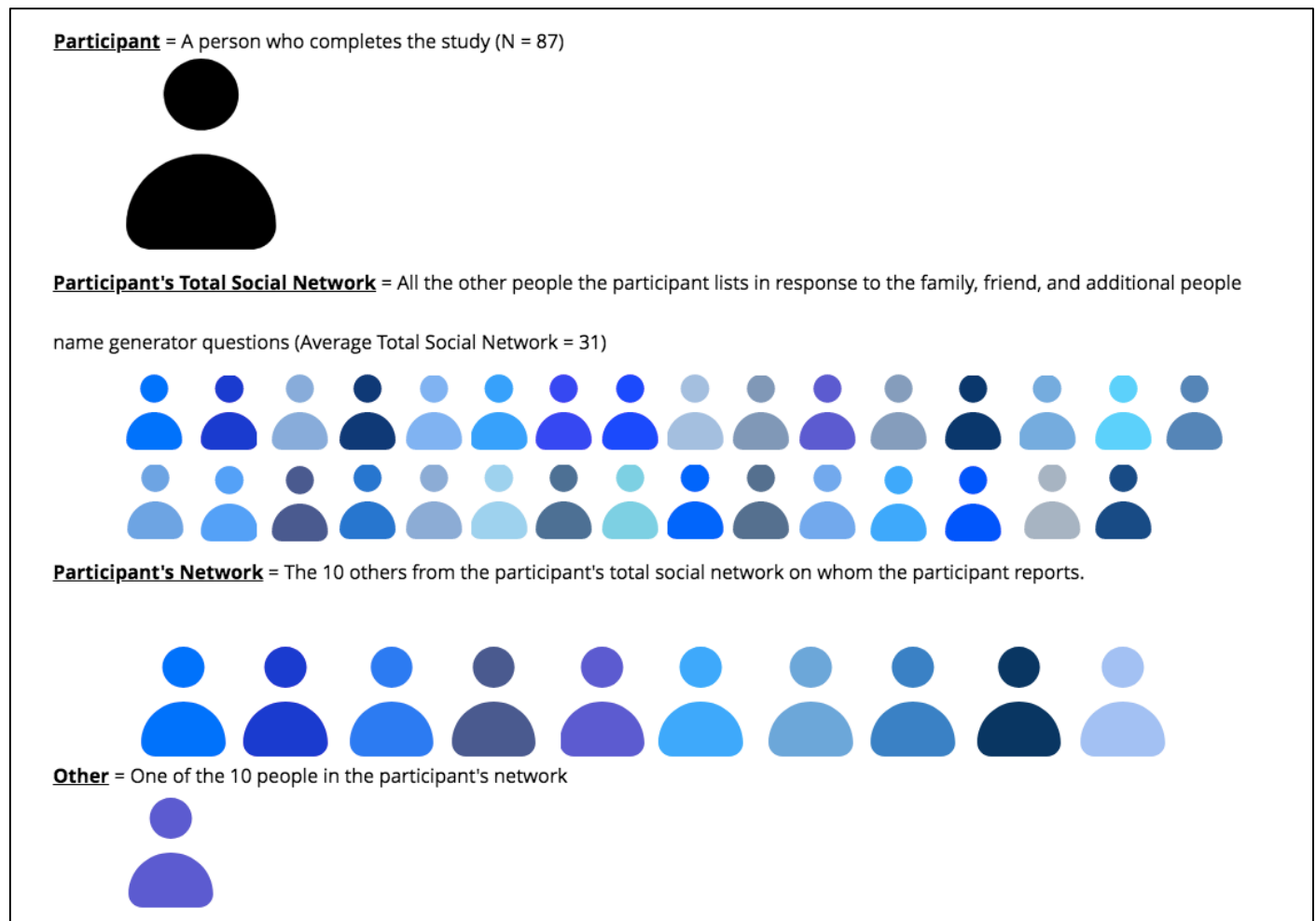
Part one of the study took place online and assessed demographic information as well as trait measures of body image not relevant to the current paper. Part two, which was the focus of the present paper, took 30-45 minutes to complete and was conducted in lab at least three days after part one to try to prevent potential priming effects. An egocentric social network survey approach was used for part two of the study. This approach asks participants to provide information about the other people in their social network – in our case, about others' body image-related characteristics – but the others themselves are not participants of the study. The method is commonly used in anthropological and sociological research to study human behaviours and attitudes (see Perry et al., 2018 for a review). Please see Figure 2 for a glossary of the social network terms used in the current study.

To elicit the people that made up each participant's total social network, validated questions referred to as name generators were adapted slightly to fit the demands of the current study. Three name generator questions (see Supplemental Materials) were used to elicit all family (McCarty et al., 2007; Roberts & Dunbar, 2015), friends (Roberts & Dunbar, 2015), and important additional people in each participant's life. Additional people were defined as people with whom the participant is close or interacts with on a frequent basis but who are not friends or family members (Marin & Hampton, 2007; Perry et al., 2018). A sample question was: "List all known and living family members, whom you have had some contact with in the past two years." Participants were guided through the name generator questions in-lab with a trained research assistant and wrote down the names of the people in their social network on a lined

piece of paper. For the average participant, the name generator questions produced total social networks of 31 (range = 8-86) made up of approximately 13 (42%) family members (range = 2-35), 17 (55%), friends (range = 3-51), and 1 (3%) additional person (range = 0-14).

As participants would have to complete each study measure once for each of their specific relationships, we decided to choose 10 people from participants' total social networks (see Figure 2). Choosing 10 people helped to prevent participant burden while also taking into account suggestions to maximize statistical power at the within-persons level (Bell et al., 2010). A selection procedure was followed to ensure that these 10 others were proportionally representative of the family, friend, and additional people composition of participants' total social network; however, within each subgroup (e.g., family members), the selection of the others was randomized. More details about the selection process are available in Supplemental Materials.

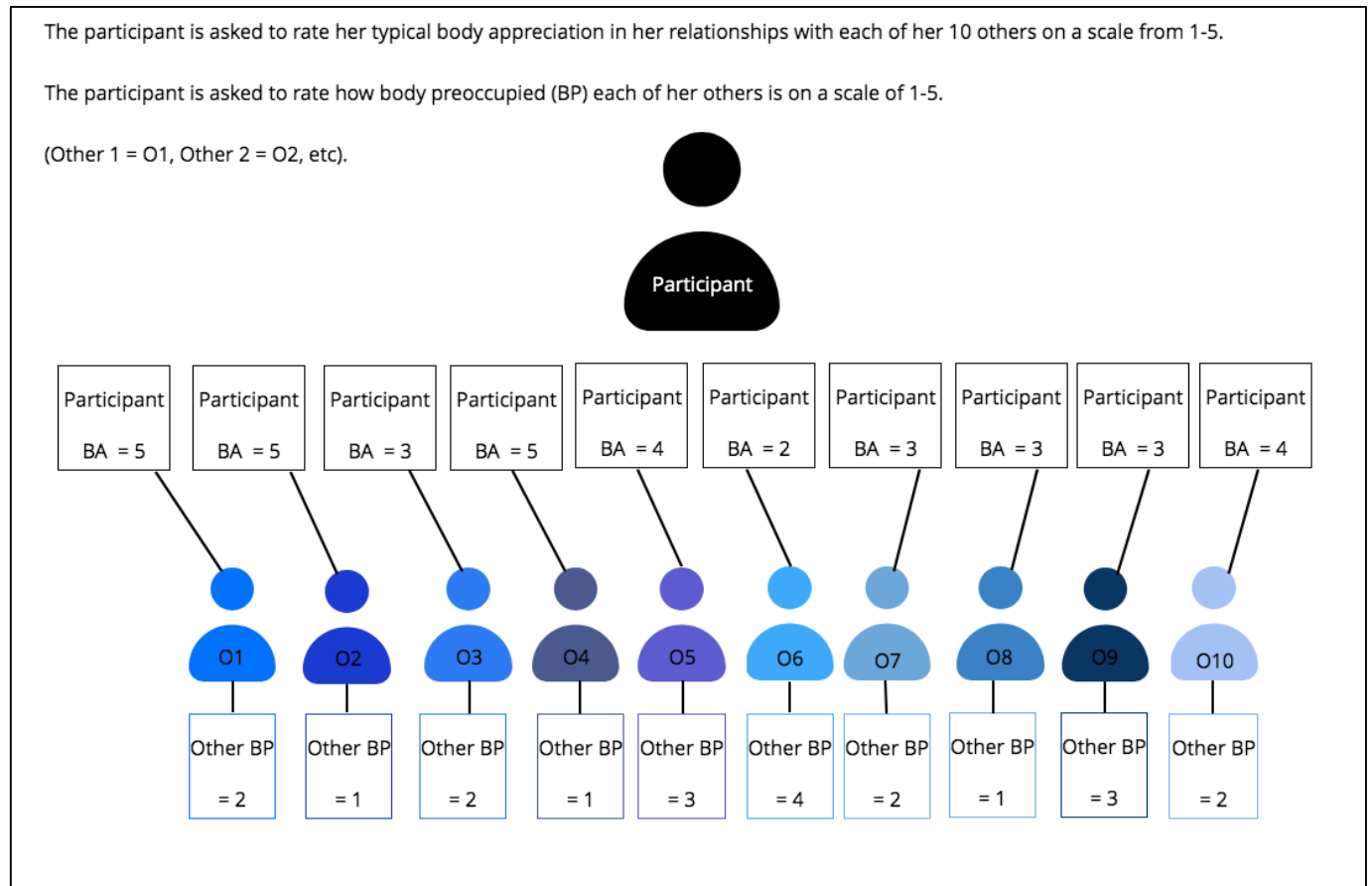
Figure 2: *Visual Glossary of Social Network Terms*



Measures

Using Qualtrics survey software on a lab computer, participants first answered a series of demographic questions about each of their 10 others. Next, they completed all study measures once for each of these others (see Figure 3). A research assistant checked in periodically to offer assistance and enforced two short breaks to increase compliance (Perry et al., 2018).

Figure 3: *A Sample Participant's Ratings of Others' Body Preoccupation and her own Body Appreciation with Each of these Others*



Note. For interested readers, Appendix A provides additional figures to help clarify social network concepts and methodology used in the current study.

Descriptive Information

Information about participant. Participants completed a brief demographics measure about themselves and self-reported on their age, biological sex, ethnicity, sexual orientation, and current height and weight. In addition, participants answered yes or no to whether they believed they had had an eating disorder in the past, and whether they believed they have an eating

disorder currently. In the current study participants were considered to have an eating disorder history if they answered yes to either question.

Information about 10 others. Participants reported on other's sex, on the nature of her relationship to the other (e.g., roommate, sister, acquaintance; adapted from National Social Life, Health, & Aging Project; Waite et al., 2014), their closeness (adapted from the Unidimensional Relationship Closeness Scale; Dibble et al., 2012), and the frequency of their direct (face-to-face) and indirect contact (texting/talking on the phone, messaging on social media, email; adapted from General Social Survey, Pescolido et al., 1998).

Central Measures

Participants completed every central measure 10 times, once for each other in their network. Measures prompted participants to think about their *general* experiences of themselves with each of these other people and of their *general* perceptions of each of these others; measures did not ask about particular instances of interaction. Validated measures were shortened; specifically, a subset of three items was selected from original scales to reduce participant cognitive load (Nezlek, 2012a) while also preserving enough items for reliability procedures to be conducted (Geldhof et al., 2014). The final items were selected by the authors in consultation with lab members based on the items' ability to assess the constructs of interest in a relational context. That is, the authors tried to select those items that appeared most relevant to participants' relationships with specific others. These adapted versions of the varying questionnaires have not been previously validated. For all measures, Geldhof et al.'s (2014) procedure for estimating reliability using multilevel confirmatory factor analysis was used as is suggested for hierarchical data in which at least one level of data (e.g., people in an individual's network) is nested within another (e.g., the individual). Multilevel CFA computes an omega

value to assess reliability. Omega is conceptually similar to Cronbach's alpha but has less restrictive assumptions about the item-construct relationship and estimates the true score variance as a function of item factor loadings (Geldhof et al., 2014).

Predictor variables: Others' perceived characteristics.

Other's body acceptance of the participant. The two main stems from the Body Acceptance by Others Scale (BAOS; Avalos & Tylka, 2006) were used to create a two-item measure that participants used to report on their perceived body acceptance from each of their 10 others: "I've felt acceptance from X regarding my body shape and/or weight" and "X has sent me the message that my body shape and weight are fine." In the original 10-item BAOS, these two statements are completed about friends in general, family members in general, romantic partners, society, and the media. The BAOS has strong positive correlations with body appreciation, intuitive eating, and body functionality at the trait level (Webb et al., 2015) and Avalos and Tylka (2006) demonstrated excellent internal consistency for the original BAOS ($\alpha = .91$). The two-stemmed structure of the BAOS resulted in the selection of only two items for this particular measure; therefore, multilevel CFA could not be used to calculate reliability. The within- and between-persons zero-order correlations between the two items were .74 and .64 respectively, indicating adequate internal consistency.

Other's body preoccupation. The degree to which participants perceived specific others to be preoccupied with their body was measured by adapting three items from Kelly et al.'s (2016) measure of body focus. The original measure captured how often participants were exposed to body preoccupied others in their daily life and was negatively related to both daily body appreciation and intuitive eating. The final items in this study were: "X talks about or engages in dieting," "X talks about or engages in exercise and working out as a way to control

her or his weight/shape,” and “X focuses on her/his body image.” In Kelly et al.’s daily dairy study (2016) Cronbach’s alphas for the body focus measure across the study days were .85 - .89. In the current study, the within-persons and between-persons omegas were .82 and .90 respectively, indicating adequate internal consistency.

Other’s body size discrepancy from the participant. Participants self-reported on their own body size and on that of their 10 specific others using an adapted version of the Figure Rating Scale (Stunkard et al., 1983). From nine silhouettes with increasingly larger body sizes/shapes, participants selected the silhouette that best represented their current body size/shape as well as the silhouette that best represented each of their male and female network members. This procedure of estimating others’ weight status has been used with the Stunkard scale in past egocentric network research with a Southeast Asian population (Lankci et al., 2018). Traditionally, the Stunkard scale has been used to derive a measure of body size discrepancy, which represents the difference between individuals’ ideal body size ratings and how they think and feel their body size actually looks. Larger discrepancies between individuals’ ideal body size and actual self-size ratings has been related to greater body dissatisfaction (Thompson & Altabe, 1990). In the current study, the discrepancy score was adapted to represent the difference between each participant’s self-reported body size and the perceived body size of each other person in her network, which to our knowledge has not been done in past research.

Criterion variables: Participants’ body image and eating.

Participant’s body appreciation. Three items from the trait Body Appreciation Scale-2 (BAS-2; Tylka & Wood-Barcalow, 2015) were adapted to create a composite measure of participants’ positive attitudes towards their bodies in their relationships with their specific others. Participants rated the following three statements with reference to each other: When I am

with X... “I am comfortable with my body,” “I feel that my body has at least some good qualities,” and “I feel good about my body.” Trait body appreciation is positively associated with psychological well-being and intuitive eating and appears to assess distinct body image attitudes, demonstrating predictive power above and beyond trait measures of body dissatisfaction (Tylka & Wood-Barcalow, 2015). The BAS-2 also has excellent internal consistency with female samples ($\alpha = .94$; Tylka & Wood-Barcalow, 2015). In the current study, the three-item version was also internally consistent, with a within-persons omega of .90 and between-persons omega of .98.

Participant’s intuitive eating. Three items from the Unconditional Permission to Eat subscale of the Intuitive Eating Scale-2 (IES-2; Tylka & Kroon Van Diest, 2013) were selected to create a composite measure of participants’ tendency to follow their satiety cues in their relationships with each of their specific others. Items were: When I am with X... “I allow myself to eat what food I desire at the moment,” “If I am craving a certain food, I allow myself to have it,” and “I try to avoid eating food high in fat, carbohydrates, or calories.” Item 3 was reverse scored to create the composite. The IES-2 has been associated with less disordered eating symptoms and greater body appreciation, and the original measure has good internal consistency with women ($\alpha = .87$; Tylka & Kroon Van Diest, 2013). The IES has also been used in Southeast Asian populations (Hawks et al., 2004). The present three-item version was also internally consistent with within- and between-persons omegas of .83 and .83.

Participant’s appearance orientation. Three items from the Appearance Orientation subscale of the Multidimensional Body-Self Relations Questionnaire (MBSRQ; Brown et al., 1990) were adapted to create a composite measure of participants’ orientation towards their appearance in their relationships with each of their specific others. Items were: If I know I am

going to be seeing X... “I usually spend a lot of time getting ready,” “I usually wear whatever is handy, without caring how it looks,” and “I use very few grooming products.” Items 2 and 3 were reverse scored to create the composite. Items were selected to measure behavioural investment in appearance in particular; women tend to report greater behavioural investment than men (Muth & Cash, 1997). Internal consistency for female samples is good ($\alpha = .85$) when using the full 12-item subscale (Cash, 2000). In the current study, within-persons omega was .84 and between-persons omega was .76, indicating adequate internal consistency.

Data Analytic Approach

All analyses were conducted in R.3.5.1 (R Core Team, 2018) using multilevel modeling. Multilevel modeling is the recommended data analytic approach when data structures are hierarchical, as hierarchical data violates the OLS regression assumption of independent residuals (Nezlek, 2012b). The fact that each participant in the present study provided 10 separate sets of reports, one for each person in her social network, makes the data hierarchical as these 10 reports are nested within the participant who provides them (Perry et al., 2018). Multilevel modeling considers the shared variance across the 10 reports provided by a given participant. It allows for a disentangling of within-persons (or level 1) variance, which in this study refers to the specific other being reported on, from between-persons (or level 2) variance, which refers to the group of 10 others sampled from the participant’s network (Nezlek, 2012b).

Intraclass Correlations Testing Hypotheses 1 and 2

Intraclass correlations (ICCs) were used to test hypotheses 1 and 2 about the within-persons variability in body image, and perceptions of others’ characteristics, that a participant experiences across her 10 specific relationships. The ICC provides a ratio of the between-persons variance to the total variance (i.e., between-persons variance + within-persons variance; Field et

al., 2009). As such, ICCs closer to 1.0 indicate that the majority of the variance is at the between-persons levels and suggest that the variable is relatively stable within an individual, whereas ICCs closer to 0.0 indicate that the majority of the variance is at the within-persons level and the variable is relatively instable within an individual (Zuroff et al., 2016). In the current study, ICCs closer to 0.0 on the criterion measures would provide greater evidence for relational body image, in support of hypothesis 1, as these would indicate that a given participant is reporting relatively different body image and eating scores from one relationship to another. In addition, ICCs closer to 0.0 on participants' reports of others would provide greater evidence that participants perceive the others within their own networks as differing in the characteristics they possess, in support of hypothesis 2.

Multilevel Models Testing Hypotheses 3 and 4

Two-level multilevel models were conducted to test hypotheses 3a-c that perceived differences in the characteristics of others would predict participants' body image and eating in their relationships, and hypotheses 4a-c that average perceived network qualities would contribute to participant body image and eating. Multilevel models were estimated with an unstructured covariance matrix and degrees of freedom were estimated using the Satterthwaite approximation from the lmer function in the lmerTest package (Kuznetsova et al., 2017). Raw scores on participant body appreciation, participant appearance orientation, and participant intuitive eating across relationships were the criterion variables.

Disaggregation of within- and between-persons variance. Prior to analyses, level-2 (between-persons) and level-1 (within-persons) variables were created for each predictor: other's body preoccupation, other's body acceptance of the participant, and other's body size discrepancy from the participant. The three level-2 predictors were calculated by taking the mean

of a given participant's raw score ratings of her 10 specific others. These between-persons variables allowed us to test hypotheses 4a-c (Perry et al., 2018). All level-2 predictor variables were grand-mean centered and represented the extent to which a given participant's network qualities tended to differ from the average participant's network. For example, how much more or less body preoccupied is Participant X's network compared to the average participant's network. Level-1 predictor variables were centered within-persons, with scores representing the extent to which a given other in the participant's network deviated from the average person in her network on the independent variable in question. For instance, how much more or less body preoccupied is Other X than the average person in the participant's network? Level-1 and -2 predictors were unstandardized, as is often suggested for multilevel models (Nezlek, 2012b).

Covariates. Other's sex, other's direct and indirect contact, other's relationship type, and other's closeness were entered as initial level-1 covariates. Participants' self-reported history of ED and BMI were participant individual differences that were included as initial level-2 covariates. Finally, average closeness to the others was calculated by taking the mean of a given participants raw closeness ratings of her 10 specific others. All categorical covariates were dummy-coded and level-1 and level-2 covariates were not centered as their contribution to criterion variables was not of primary interest (Enders & Tofighi, 2007).

Model building. Complex multilevel models with many parameters can result in computational problems and be difficult to interpret, and this was the first study to investigate relational body image. We therefore followed Hox's (2010) bottom-up exploratory approach for our model-building strategy. In all steps, the decision to retain fixed and random effects in the final models was made by assessing whether model fit improved significantly as determined by the likelihood ratio test. We started with the intercept-only model to disaggregate all variables

into within- and between-persons variance, and calculate the ICCs. From there, the contribution of each level 1 fixed effect for the covariate and predictor variables was assessed. Subsequently, the contribution of each level 2 fixed effect for the covariate and predictor variables was assessed, and lastly the contribution of each level 1 random effect for the predictor variables was assessed. In final models reported below, only fixed effects for covariate and predictor variables that improved model fit were retained. In addition, in final models only random effects for predictor variables that significantly improved model fit were retained.

Effect sizes. Effect sizes were estimated with semi-partial R^2 , which is suggested for multilevel models. It represents the partial multivariate association between the repeated outcomes and the predictor, after controlling for the effect of the other predictors (Edwards et al., 2008). As per Cohen (1992), .02 indicates a small effect, .13 indicates a medium effect, and .26 indicates a large effect.

Results

Preliminary Analyses

Participant and Network Descriptive Statistics

Participant means and reliabilities are provided for all study variables in Table 1. The average relationship closeness rating across the 10 others was 4.58/7 ($SD = 0.86$), suggesting relatively close relationships. As well, participants reported being in direct contact with 19.1% of others almost every day, and indirect contact with 21.2% of others almost every day (see Table 2 for further demographic information about the selected network members).

Table 1: *Descriptive Statistics for Study Variables*

Study Variables	Possible Range	Mean	Variance		
			Within	Between	ICC
Other's Body Preoccupation	1 – 5	2.68	1.26	0.22	.15
Other's Body Acceptance	1 – 5	3.93	0.89	0.34	.28
Other's Body Size Discrepancy	-8 – 8	-0.10	2.67	2.09	.44
Participant Body Appreciation	1 – 5	3.99	0.45	0.56	.55
Participant Appearance Orientation	1 – 5	2.49	1.12	0.27	.20
Participant Intuitive Eating	1 – 5	3.88	0.61	0.52	.46

Note: Mean values were calculated to represent the average of participants' personal means across their 10 others.

Table 2: *Others' Demographics Represented as the Average Percentage of Participants' 10 Others*

	Average % of 10 Others
Sex	
Male	38.5
Female	61.2
Other	0.3
Relationship Type	
Family	43.1
Friend	40.8
Romantic/Sexual Partner	2.6
Additional People	13.5
Direct Contact ^a	
Almost Everyday	19.1
At Least Once a Week	21.3
At Least Than Once a Month	22.8
Less Than Once a Month	25.3
Less Than Once a Year	11.5
Indirect Contact ^a	
Almost Everyday	21.2
At Least Once a Week	23.9
At Least Than Once a Month	17.9
Less Than Once a Month	20.3

Note: Percentages were calculated to represent the average of participants' personal percentages across their 10 others.

^aDirect contact measures face-to-face contact, whereas indirect contact measures talking/texting over the phone, messaging on social media, emails.

Zero-Order Correlations

Pearson zero-order correlations were calculated at both the within- and between-persons levels (see Table 3). At both levels, predictor variables (i.e., other's body preoccupation, other's body acceptance of participant, and other's body size discrepancy from participant) tended not to be significantly related to one another. There were significant correlations between the predictor and criterion variables. At the within-persons level, a given participant's body appreciation and intuitive eating were higher, and appearance orientation was lower, with others perceived as less body preoccupied, more body accepting of them, and more similar in size relative to their own body size. At the between-persons level, average body appreciation was higher among participants who perceived their overall networks as being more accepting of their body and more similar in size to their own bodies. Average intuitive eating was higher among participants who perceived their networks as being less body preoccupied, more accepting of their body, and relatively less thin. Finally, average appearance orientation was lower among participants who perceived their networks as being less body preoccupied overall.

Table 3: Zero-Order Correlations between Study Variables at the Within- and Between-Persons Levels

Study Variables	1.	2.	3.	4.	5.	6.
1. Other's Body Preoccupation		-.06	.07	-.18***	.18***	-.22***
2. Other's Body Acceptance	-.07		-.08*	.42***	-.13***	.30***
3. Other's Body Size Discrepancy	.06	-.18		-.28***	.20***	-.20***
4. Participant Body Appreciation	-.16	.53**	-.51**		-.37***	.50***
5. Participant Appearance Orientation	.30**	-.19	.15	-.24*		-.45***
6. Participant Intuitive Eating	-.23*	.34**	-.26*	.59**	-.28**	

Note: Within-persons correlations above the diagonal, between-person below the diagonal. Within-persons correlations were calculated using the rmcrr package (Bakdash and Marusich, 2017).

$p < .05$ *; $p < .01$ **; $p < .001$ ***

Central Analyses

Hypothesis 1: Testing within-persons variance in body image as a function of specific relationships

The ICCs for the criterion variables assessing participants' body image and eating were .46 for intuitive eating, .20 for appearance orientation, and .55 for body appreciation. The results demonstrated that, with the exception of body appreciation, there is more within- than between-persons variance in the criterion variables. The ICC for body appreciation suggests that while 55% of the variance could be attributed to differences between-persons, a significant proportion of the variance (~45%) was attributable to within-persons differences. Similarly, the ICC for appearance orientation suggests that while 20% of the variance could be attributed to between-persons differences, the vast majority of the variance (~80%) could be attributed to within-persons differences. Thus, consistent with hypothesis 1, all of the body image and eating variables appeared to vary within a participant, from one specific relationship to the next.

Hypothesis 2: Testing within-persons differences in others' perceived characteristics across specific relationships

ICCs for the predictor variables assessing others' perceived characteristics were .15 for other body preoccupation, .28 for other body acceptance of the participant, and .44 for other body size discrepancy from the participant. As all ICCs were closer to 0.0 than 1.0, the results suggest that participants tended to perceive the people in their networks as differing from one another in the characteristics they possessed. For example, the ICC for body preoccupation suggests that ~75% of the variance in others' characteristics was attributable to differences within a given participant's social network. In fact, all the ICCs were $\leq .44$, suggesting that on

the characteristics examined in this study, there were more perceived differences within a participant's network than there were between participants' networks.

Hypotheses 3a-c: Testing the within-persons contribution of specific others' perceived characteristics to participants' body image and eating

Predicting participant body appreciation (3A). Other's body preoccupation, body acceptance of the participant, and body size discrepancy from the participant were all uniquely related to participants' body appreciation. In particular, relative to the average other in the network, being with others whom were perceived as more body accepting of the participant (.55, large effect) was related to higher participant body appreciation. Being with others whom were perceived as relatively more body preoccupied (.01, small effect) and thinner than the participant (.27, large effect) was related to lower participant body appreciation (see Table 4).

Predicting participant appearance orientation (3B). Other's body preoccupation (.02, small effect), body acceptance of the participant (.06, small effect), and body size discrepancy from the participant (.02, small effect) were all related to participants' appearance orientation. With others perceived as relatively more accepting of the participant's body, participants reported investing less in their appearance. With others perceived as having relatively thinner bodies than the participant, participants reported investing more in their appearance (see Table 4).

Predicting participant intuitive eating (3C). Other's body preoccupation (.16, medium effect), body acceptance (.21, large effect), and body size discrepancy (.02, small effect) emerged as unique predictors of participants' intuitive eating. Specifically, participants reported more intuitive eating with others perceived as being relatively more body accepting of them than

the average other in her network. Participants also reported less intuitive eating with others perceived as being relatively thinner (see Table 4).

Table 4: *Final Within- and Between-Persons Models Predicting Participant Body Appreciation, Appearance Orientation, and Intuitive Eating*

Fixed Effect	<i>B</i> (<i>SE</i>)	<i>t</i>	DF	<i>Semi-Partial</i> <i>R</i> _{β} ²
DV = Participant Body Appreciation				
Within-Persons ^a				
Other's Relationship Type: Friend (Ref: Family)	-0.13 (0.05)**	-2.67	726.74	.02
Other's Relationship Type: Additional People (Ref: Friend)	-0.23 (0.06)***	-3.73	733.25	.02
Other's Body Preoccupation	-0.06 (0.02)**	-3.07	728.35	.01
Other's Body Acceptance	0.29 (0.03)***	9.62	76.99	.55
Other's Body Size Discrepancy	-0.09 (0.02)***	-4.99	68.37	.27
Between-Persons				
ED Presence: No Current/Past ED (Ref: Current/Past ED)	0.46 (0.14)**	3.29	81.88	.12
Others' Body Acceptance	0.48 (0.09)***	5.27	82.10	.25
Others' Body Size Discrepancy	-0.22 (0.04)***	-5.42	81.74	.26
DV = Participant Appearance Orientation				
Within-Persons ^b				
Other's Relationship Type: Friend (Ref: Family)	0.53 (0.08)***	6.37	754.38	.05

Fixed Effect	<i>B (SE)</i>	<i>t</i>	DF	<i>Semi-Partial</i> <i>R²_β</i>
Other's Relationship Type: Additional People (Ref: Family)	0.39 (0.10)***	3.77	770.21	.05
Other's Relationship Closeness	-0.08 (0.02)***	-3.74	787.99	.02
Other's Body Preoccupation	0.13 (0.03)***	3.89	729.96	.02
Other's Body Acceptance	-0.12 (0.06)*	-2.14	68.60	.06
Other's Body Size Discrepancy	0.08 (0.02)***	3.36	724.58	.02
Between-Persons				
Others' Body Preoccupation	0.33 (0.11)**	2.37	85.30	.09
DV = Participant Intuitive Eating				
Within-Persons ^c				
Other's Relationship Type: Friend (Ref: Family)	-0.19 (0.06)**	-3.15	720.56	.02
Other's Relationship Type: Additional People (Ref: Family)	-0.29 (0.07)***	-3.88	731.66	.02
Other's Relationship Closeness	0.06 (0.02)***	3.63	748.66	.02
Other's Body Preoccupation	-0.12 (0.03)***	-4.21	91.51	.16
Other's Body Acceptance	0.18 (0.04)***	4.41	72.56	.21
Other's Body Size Discrepancy	-0.06 (0.02)***	-3.78	719.86	.02
Between-Persons				
ED Presence: No Past/Current ED (Ref: Past/Current ED)	0.51 (0.18)**	2.85	82.08	.09
Others' Body Acceptance	0.23 (0.11)*	2.00	82.08	.05
Others' Body Size Discrepancy	-0.11 (0.05)*	-2.31	82.31	.06

Note. ED = Eating Disorder. ED Presence was dummy coded, where: Past/Current ED = 0, and No Past/Current ED = 1. Other Relationship Type was dummy coded, where: Family = 0 and Friend = 1; and Family = 0 and Other = 1.

Effect sizes are semi-partial R^2 (Edwards et al., 2008). As per Cohen (1992), .02 indicates a small effect, .13 indicates a medium effect, and .26 indicates a large effect.

The decision to retain fixed and random effects in the final models was made by assessing whether model fit improved significantly as determined by the likelihood ratio test.

^a Predicting Participant Body Appreciation, Within-Persons = Random effect retained for Other's Body Acceptance and Other's Body Size Discrepancy.

^b Predicting Participant Appearance Orientation, Within-Persons = Random effect retained for Other's Body Size Discrepancy.

^c Predicting Participant Intuitive Eating, Within-Persons = Random effect retained Other's Body Preoccupation and Other's Body Acceptance.

$p < .05$ *, $p < .01$ **, $p < .001$ ***

Hypotheses 4a-c: Testing the between-persons contribution of average perceived network characteristics to participants' body image and eating

Predicting participant body appreciation (4A). Network body acceptance of the participant (.25, medium effect) and body size discrepancy from the participant (.26, medium effect) were unique predictors of participants' body appreciation, whereas network body preoccupation was not. That is, participants who perceived their 10 others as being, on average, less body accepting of them and thinner than them, reported lower body appreciation. Network body preoccupation was not a significant predictor.

Predicting participant appearance orientation (4B). Only network body preoccupation (.09, small effect) was related to participants' appearance orientation, with participants who perceived their 10 others as being more body preoccupied, on average, reporting greater investment in their appearance. Average levels of perceived body acceptance and body size discrepancy in a network did not contribute to participants' investment in their appearance.

Predicting participant intuitive eating (4C). Network body acceptance of the participant (.05, small effect) and body size discrepancy from the participant (.06, small effect), but not body preoccupation, were significant predictors of participants' intuitive eating. Participants who perceived their networks to be, on average, more body accepting of them reported more intuitive eating and those who perceived those in their network to be thinner than them on average reported less intuitive eating.

Discussion

The goal of the current study was to provide support for the novel concept of *relational body image* by investigating the extent to which a given individual's body image differs systematically across her relationships with specific others. Past research on social predictors of body image has demonstrated that at the between-persons level, individuals differ from one another in their body image based on the aggregate characteristics of the others in their life (e.g., Avalos & Tylka; Fletcher et al., 2011), and that at the within-persons level, a given individual experiences shifts in her state body image based on the social factors present during specified time periods (e.g., Jones et al., 2014; Kelly et al., 2016). Findings from the current study uncovered an additional social contributor to body image within a person – the *specific people* in an individual's life. That is, college women reported considerable differences in their body

image attitudes and behaviours across their specific relationships. Results therefore provided preliminary evidence for *relational body image*.

In the present sample, body appreciation levels ($ICC = .55$) varied almost as much within a participant, from one relationship to another, as they did between participants and intuitive eating ($ICC = .46$) and appearance orientation ($ICC = .20$) varied more within a person than between-persons. Therefore, the difference in Participant X's body image attitudes and behaviours with Person A as compared to with Person B was often larger than the difference in average body image levels between Participant X and Participant Y. In the current study, our measure of body appreciation assessed how positively or comfortable participants feel vis-à-vis their body with each of their others. This attitudinal focus stands in contrast to the behavioural focus of the appearance orientation measure, which assessed what participants do to present their physical appearance in a certain way with each other, and to the intuitive eating measure, which assessed participants' eating habits with each of their others. Our findings may therefore suggest that body image-related behaviours exhibit more variability than body image attitudes within a person across specific relationships. However, findings may also reflect participants' greater awareness of their relationship-specific behaviours versus attitudes.

Results also provide support for our theorized source of relational body image – perceived differences in the characteristics of specific others. As hypothesized, within their personal networks, college women perceived considerable differences (all $ICCs \leq .44$) in others' body image preoccupation, acceptance of the participant's body, and body size discrepancy from the participant and these perceived differences contributed meaningfully to women's body image and eating in their relationships. Specifically, women reported eating more intuitively, investing less in the presentation of their physical appearance, and/or appreciating their bodies more with

those in their network whom they perceived as relatively less body preoccupied, more body accepting, and/or more similar in size to them. Therefore, although social network analysis research has demonstrated that the people within a social network generally tend to report similar body image-related attitudes and/or weight status (e.g., Paxton et al., 1999; Fletcher et al., 2011; Zhang et al., 2018), the present findings suggest that college women may still perceive notable differences in these characteristics when considering the specific people in their life. Moreover, these perceived differences give rise to varying body image experiences in relationships.

Theoretical Implications

If replicated, the present findings suggest that current theoretical models and methods of investigating social predictors of body image can be expanded to include an emphasis on within-persons variations in body image due to the perceived characteristics of specific others. For example, the acceptance model also appears to apply to specific relationships, in that greater perceived body acceptance from a specific other – not just others on average – contributed to women's body appreciation and intuitive eating. It is likely that social predictors in other prominent between-persons models of body image may also influence a given individual's body image, for example, the relative pressure to be thin she experiences in one specific relationship versus another (e.g., Fredrickson & Roberts, 1997; Thompson, Heinberg, et al., 1999). Additionally, past social network research on body image has primarily studied peer networks in school settings (e.g., Fletcher et al., 2011; Zhang et al., 2018). While body image attitudes and weight may be highly similar within these more bounded networks, patterns may be different in broader social networks such as those sampled in the present study – that is, networks that include the various types of relationships in an individual's life (e.g., friends, family members, neighbours). Finally, future within-persons research on state body image during social

interactions (e.g., Mills et al., 2014; Nezlek, 1999) may benefit from also collecting information on the more stable perceptions of specific others so that the predictive power of stable features (e.g., how body preoccupied one believes one's sister tends to be in general) could be compared to more state-based features (e.g., how much one's sister talked about dieting today). The present results thus support continued research of previous models and methods that examine social influences on body image, and highlight the potential for past traditions to generate hypotheses about which social factors may influence a given individual's body in his or her specific relationships. Moreover, we suggest that the theoretical and empirical study of relational body image may help to enrich our current understanding and study of body image.

The present study also highlights the utility of borrowing from other disciplines when considering how to expand current theoretical models and measurements of body image. In particular, research programs that study individual-based concepts from a socially-informed lens may offer fruitful new directions (e.g., Baldwin, 1992). Indeed, the construct of body image has some philosophical roots in sociology (Merleau-Ponty, 1962) and feminist theory (Fredrickson & Roberts, 1997), and more recent theories of body image have started to re-integrate these more relationally-based ideas (e.g., Piran & Teall, 2012). However, research on the self and on personality traits specifically tends to be consulted less to garner new ideas within body image research. Self-attitudes and personality research may be uniquely applicable to relational body image as innovative theoretical models and assessment methods have been developed to specifically study the ways in which interpersonal relationships are “inseparably interwoven” with the way individuals view themselves (Back et al., 2011, p.1; Hopwood et al., 2019).

Practical Implications

The current results suggest that when trying to prevent and/or intervene with body dissatisfaction and when trying to promote body appreciation, an important step may be to ask women about their different relationships and what characteristics the people they spend time with are perceived to possess. Determining which people in an individual's life possess features likely to elicit more adaptive versus more maladaptive body image and eating could help said individual make decisions that may improve her body image, such as spending more time with the people who are "helpful" for her body image and less time with those who are "harmful." However, in some cases, those who are "harmful" to an individual's body image may still be important to her in other ways, making it practically difficult or undesirable to take such an approach. Furthermore, within-persons correlations revealed that a given other's level of body preoccupation was unrelated to his or her body acceptance of the participant, suggesting that a given other may simultaneously possess both "helpful" and "harmful" features. Therefore, an alternative to trying to improve body image by spending more or less time with certain people may be to alter the nature of social interactions with a given other so as to decrease the salience of his or her more "harmful" features, and reap the benefits of any "helpful" features s/he may possess. For example, an individual could ask a friend to stop talking about dieting or could choose to spend time with said friend in contexts less likely to elicit the friend's body preoccupation, such as meeting over coffee rather than exercising together. Future research could investigate if individuals can use information about how specific others in their life influence their body image and eating to better navigate their social environments so that they can experience positive body image more often.

From a more prosocial perspective, the results also suggest it would be beneficial for all of us to reflect on how our own characteristics may influence the body image and eating of the people around us. Building on past research, the current study continues to highlight that reducing or eliminating the amount of time we spend talking about dieting and exercising for weight/shape control (Miller et al., 2019; Shannon & Mills, 2015), as well as making people feel accepted, and not criticized, for their bodies (e.g., Wood-Barcalow et al., 2010; Tiggemann, 2019) may promote more positive body image and intuitive eating in the people in our lives.

Limitations and Future Directions

As this study was the first to investigate relational body image and eating, results need to be replicated. Furthermore, the study had a number of methodological limitations. First, all study measures were adapted from between-persons trait measures and thus their validity remains unclear. As well, due to the repeated nature of the study, measures needed to be shortened, which often meant that only a portion of the construct was measured (e.g., only items from the Unconditional Permission to Eat subscale of the Intuitive Eating Scale were used). The adapted scales were also used to measure more stable attributes of relational body image. While research on the relational self supports this conceptualization (Baldwin 1992, Chen et al., 2006), other interpersonal theories in psychology still emphasize the importance of assessing in-the-moment social interactions, which the current study did not include (Back et al., 2011). Relatedly, because participants were required to complete each measure for all of their specific others across a short period of time, this may have primed participants to report larger differences in their others' characteristics, and in their own body image and eating, than they would report in their daily lives. Finally, to reduce participant burden, only 10 others from each participant's network were chosen for the current study, which may not have provided an accurate

representation of their overall social networks. To address the methodological issues within the current study, future research should try to also measure relationship-specific body image naturalistically in the context of participants' daily lives such as by using ecological momentary assessment. Naturalistic assessment could also allow data from a greater number of people in one's total social network to be collected, which may provide more accurate measurements of within-persons variance.

Importantly, the current study relied on a convenience sample of young-adult, female-identified North American undergraduate students. Our sample was ethnically diverse, with only about one third of the sample identifying as white. In addition, approximately 20% of the present sample endorsed having a past or current eating disorder, and individuals with eating disorders can differentially perceive and interpret body image relevant social contexts (Corning et al., 2006). It is likely that in other samples, which include individuals of other ages, genders, ethnicities, and eating disorder symptomology, the current findings may not generalize and the perceived characteristics of the other that contribute to a given individual's body image may be quite different. Similarly, while in the current sample, participants' others differed quite significantly in their perceived characteristics, this may not be true of all individuals' social networks. While the aim of current study was not to investigate the influence of these participant level characteristics, future research could increase level-2 sample size in order to examine whether participant characteristics and others' characteristics, such as participant ethnicity and others' ethnicity, may interact to predict relational body image. This may be especially important because some research suggests differences in positive body image across ethnicities (e.g., Swami et al., 2009).

A final limitation of the current study is that it relied exclusively on participants' perceptions of others' characteristics as all the data were collected from the participant's point of view. This approach matched our theoretical conceptualization of relational body image arising from one's own memories with and knowledge of another person (Baldwin, 2009). Nevertheless, solely measuring others' characteristics in this way makes it impossible to know how much relational body image hinges on perceived or actual characteristics of the other. Interestingly, research suggests that the degree of agreement between self-reports and observer reports of personality can depend on the level of acquaintanceship between the individual and the observer (e.g., Connolly & Ones, 2010). As such, it may be important in future research to additionally assess others' self-reports on their own characteristics (e.g., how body preoccupied they themselves think they are). This would also allow researchers to explore whether other-reported or participant-reported characteristics more strongly predict participants' body image in their relationships, which would have important theoretical implications for the way we conceptualize and intervene with relational body image.

Conclusions

The present results support the concept of relational body image, highlighting a new source of within-persons variance in women's body image. Incorporating a relational lens, within-persons measurement, and contemporary research on the self and personality may highlight creative avenues through which to broaden the field's current understanding and treatment of body image.

Study 2: Individual Differences in Relational Body Image: Within-Person Variability Predicts Maladaptive Trait Body Image

The person-situation debate in psychology is well-known: on the one hand, trait descriptions of a person can explain and predict critical outcomes of interest, such as marriage stability or life satisfaction, and on the other, traits fail miserably at predicting momentary behaviours (e.g., cheating; Fleeson, 2004). This discrepancy has led some to suggest that individual differences are better conceptualized as a distribution, with a person's mean and variance on a given measure representing their average tendency and behavioural variability across situations, respectively. This approach, known as Whole Trait Theory, assumes that an individual's within-person variability is just as important as their mean in explaining and predicting behaviour (Fleeson & Jayawickreme, 2015). As such, because within-person variability itself can be thought of as an individual difference variable, it can be used to predict other traits (e.g., Beckmann et al., 2020). Indeed, within-person variability in behaviours or attitudes - also referred to as intra-individual variability, reactivity, and instability - has been associated with a number of psychological traits over and above mean levels, including psychopathology (Houben et al., 2015), well-being (Dejonckheere et al., 2019), and personality (Fleeson, 2004). These findings have been used to substantiate the claim that within-person variability conveys distinct information about an individual's experience.

Theories of the self suggest that individuals who experience significant variability in their thoughts, feelings, and behaviours do so as a result of an incoherent sense of self (Jourard, 1963; Kernis, 2005; Rogers, 1961). Without the stable anchor of a coherent self, acts of the self are guided more by changing external factors than by core values and beliefs. In support of these theories, above average within-person variability is consistently related to more adverse

outcomes, including less psychological well-being and greater mental health difficulties (Houben et al., 2015). Similar findings have been observed in the body image literature, with greater within-person variability in body image predicting maladaptive trait body image and eating (Melnik et al., 2004; Rudiger et al., 2007). However, more recently, the incremental predictive value of within-person variability in body image over and above mean body image levels has been questioned as studies have failed to find the previously reported associations (Fuller-Tyszkiewicz, 2019; Fuller-Tyszkiewicz et al., 2015, 2018; Lattimore & Hutchinson, 2010; Rogers et al., 2017).

The mixed findings raise an important concern, namely, the possibility that within-person variability in body image may not be an empirical concept worth further investigation, since it has failed to consistently predict outcomes of interest. However, before dismissing a potentially useful line of research, it is worth considering that the discrepant findings may stem from different methodological choices made by researchers, and not from a lack of effect per se.

Context Matters for Within-Person Variability Measurement

Emerging research outside of body image suggests that one reason researchers may fail to find anticipated effects between within-person variability and other psychological traits is because variability is often measured without considering the contextual factors that elicit it (Lapate & Heller, 2020). Indeed, most body image studies have anchored self-report assessments to time (e.g., once a day) and thus do not account for contextual factors such as the presence or absence of other people or the nature of the situation the participant finds themselves in at the time of assessment (see Saules et al., 2009). One reason for the mixed results in body image variability studies may therefore be that past design choices have resulted in data that reflect somewhat random within-person fluctuations in body image. Indeed, contemporary research on

within-person variability in other fields is increasingly concerned with data quality, and greater efforts have been made to use strategic design choices to improve the “signal-to-noise” ratio of variability data (Dejonckheere & Mestdagh, 2021; Dejonckheere et al., 2020; Kuppens et al., 2022). Signal-to-noise ratios are a metric of data quality that allow researchers to calculate the ratio of meaningful information to random unpredictable information in their research data. Higher signal-to-noise ratios indicate higher external and internal validity of study data.

One of the main recommendations for improving signal-to-noise ratios is to design studies in ways that allow for and maximize context-sensitive measurement (Dejonckheere & Mestdagh, 2021; Dejonckheere et al., 2020; Wirth et al., 2022). Context-sensitive measurement refers to measuring within-person variability around the occurrence of theoretically-relevant contextual factors, such as measuring state mood following a perceived stressor (Lapate & Heller, 2020). Traditional naturalistic assessment methods, such as interval- and signal-contingent ecological momentary assessment (EMA), tend to provide researchers with little knowledge or control over the contextual factors present during assessments. To more easily incorporate contextual factors into variability measurement, researchers can anchor self-report assessments to specific contextual inputs and can choose contextual inputs that lend themselves to being assessed at one time point.

Measuring Within-Person Variability in Relational Body Image

In the current study, we measured within-person variability in body image across an individual’s specific relationships. Doing so heeded emerging recommendations for contextually-sensitive variability measurement (Dejonckheere et al., 2020; Mestdagh & Dejonckheere, 2021) and allowed for measurement to take place at one time point.

Waring and Kelly's (2020) study was the first to demonstrate that a given woman's body image varies systematically across her specific relationships. They termed this phenomenon relational body image and found that college women reported more adaptive body image when interacting with specific people whom they perceived to be more accepting of their bodies, less body preoccupied, and/or more similar in body size. Given these initial promising findings, and the large body of empirical research that points to the essential role of social relationships in shaping trait body image (Piran & Teall, 2012; Tiggemann, 2011, 2019), relational body image appears to offer a theoretically relevant and contextually-sensitive way to measure within-person variability. We suspected that the magnitude of body image variability that women reported across their specific relationships - that is, their within-person variability in relational body image – may be a predictor of maladaptive trait body image.

Furthermore, specific relationships appear to be a contextual input that could allow for variability to be measured at one time point. Despite the limited research on relational body image thus far, important others' perceived characteristics are a known predictor (Waring & Kelly, 2020). Past research demonstrates that perceptions of specific important others, such as perceptions of one's mother or one's partner, tend to be more trait- than state-like and demonstrate consistency over time and situations (Baldwin, 1992; Chen et al., 2006). In other words, an important relationship is a relatively strong and stable contextual stimulus (Reis & Downey, 1999). People seem able to report on their perception of an important other, and the subjective impact of an important other, without needing to be in their presence (Fraley et al., 2011; Harter et al., 1998; Waring & Kelly, 2020). In sum, we hoped that by measuring within-person variability in body image across specific relationships we would increase our chances of measuring more systematic fluctuations in body image.

The Risk of Measurement Artifacts

While variability research in other fields offers new recommendations for body image researchers to consider, it also highlights previously unconsidered criticisms. Arguably the most common method to calculate within-person variability is the within-person standard deviation (SD). However, the within-person SD suffers from a major limitation: it fails to account for the dependence between an individual's mean and corresponding variability scores when a bounded rating scale is used (Baird et al., 2006; Eid & Diener, 1999; Kalmijn & Veenhoven, 2005; Mestdagh et al., 2018). For example, if, across repeated assessments, one participant's personal mean body satisfaction score is 3/5 and another participant's is 4/5, the latter participant may exhibit a lower within-person SD than the former simply because their personal mean score is closer to the scale endpoint of 5. It is thus unclear whether lower within-person SD scores reflect objectively lower variability in body image or are simply an artifact of variability scores being constrained by idiosyncratic mean scores falling close to the scale bounds (Mestdagh et al., 2018).

Statistical recommendations for how to address artifacts resulting from mean-variability dependence have evolved in recent years (Kalokerinos et al., 2020a; Mestdagh et al., 2018), although there is still controversy about the best solution to the problem (Kalokerinos et al., 2020b; Wenzel & Kubiak, 2020). Nonetheless, the importance of at least considering mean-variability dependence is imperative. Several recent studies have found that once mean-variability dependence is accounted for, within-person variability measures convey little unique information above and beyond the mean level scores on a specific trait (Dejonckheere et al., 2019; Kalokerinos et al., 2020a; Mestdagh et al., 2018). Despite the ubiquitous use of bounded measurement scales, no body image study that has used a within-person SD to calculate

variability has attempted to address, nor explicitly mentioned, the issue of mean-variability dependence (e.g., Lattimore & Hutchinson, 2010; Melnyk et al., 2004; Rudiger et al., 2007). As such, in the present study, we incorporated a new method for calculating variability that has been shown to help safeguard against mean-variability dependence in addition to using the within-person SD (see Data Analytical Approach in Mestdagh et al., 2018). While context-sensitive measurement may be a necessary condition for revealing trait-level variability effects, researchers must also consider whether these effects are driven by measurement artifacts.

The Need for Robust Results

When conducting a study to test a hypothesis of interest, researchers are faced with many decisions that rest on their professional knowledge and judgement. Multiple justifiable options exist for routine tasks, for example, deleting outliers, dealing with missing data, deciding on which covariates to include in the model, and so on. These decisions or “researcher degrees of freedom” can involuntarily influence the outcome of any given investigation (Simmons et al., 2011). This is especially problematic when decisions are made “on-the-fly” and are motivated by a desire to find statistically significant results (Wagenmakers et al., 2012). In addition, when results are only reported based on one particular combination of methodological choices, for example, only calculating within-person variability using a within-person SD, the results are likely to be “fragile,” meaning that they hinge on a specific configuration of dependent and independent variables, analyzed in a particular way. One solution to this problem is to use a multiverse analysis, also known as specification curve analysis (Simonsohn et al., 2020; Steegen et al., 2016). In this approach, a researcher decides a priori on a set of methodologically defensible ways of testing a hypothesis of interest (e.g., which operationalizations of independent

and dependent variables to include, how to calculate within-person variability, etc.), and then proceeds to see if an effect can robustly replicate across specifications.

In the present study, we chose to use multiverse analysis to analyze our data because the ongoing controversy over how to best calculate within-person variability, and how to conduct subsequent analyses, made it difficult to decide which method to choose (e.g., Kalokerinos et al., 2020a, 2020b; Wenzel & Kubiak, 2020). By performing analyses and reporting results across a number of different methodological choices, rather than just one, results are more robust and can also shed light on the implications of different methodological choices (Simonsohn et al., 2020; Steegen et al., 2016).

The Current Study

In the current study, we addressed important limitations of past research on within-person variability in body image to better understand how variability may act as a marker for maladaptive trait body image. First, we addressed past measurement limitations by examining within-person variability in relational body image. Second, we incorporated new methods to calculate within-person variability in body image that protect against the artifact of mean-variability dependence. Finally, given mixed recommendations for how best to conduct within-person variability calculations and analyses, we used multiverse analysis to ensure that our overall results were not unduly influenced by any specific methodological choice.

By addressing limitations of past research, the current study sought to examine whether within-person variability in body image, when examined across the context-sensitive domain of specific relationships, is related to trait body image in robust, meaningful ways. In so doing, we hoped that the present findings would help to determine if, and how, within-person variability in body image merits future research. Given that past research in body image and in other fields has

found that significant within-person variability may signal an underlying psychological vulnerability (e.g., Houben et al., 2015; Kernis, 2005; Rudiger et al., 2007), we hypothesized that a general pattern would emerge in which greater within-person variability in relational body image would positively predict other indicators of maladaptive trait body image.

Method

Participants

Self-identified female undergraduate students were recruited for a two-part study exploring social relationships and body image from two psychology subject pools at a large Canadian University. They were compensated with a \$15 Amazon gift card or course credit based on the participant recruiting pool. An all-female sample was chosen for the current study as women experience more negative body image than men (Frederick et al., 2022), are more frequently targeted by messages and images conveying an “ideal appearance,” and are more negatively impacted by appearances norms (Buote et al., 2011). In addition, an all-female sample facilitated comparison with extant relevant research (e.g., Fuller-Tyszkiewicz et al., 2015; Melnyk et al., 2004; Rogers et al., 2017; Rudiger et al., 2007). The study was approved by the university’s ethics review board (REB #40613).

An a-priori sample size of $N = 213$ was recommended by G*Power (Faul et al., 2009) to detect a small effect ($r = .21$) with sufficient statistical power in a test ($1-\beta = .80$, $\alpha = .05$, two predictors, two-tailed).² Data collection took place over two waves; 96 participants were recruited during the first wave, and other findings from the first wave have been previously

² A small effect was used to estimate sample size as there is a lack of previous research on within-person variability in body image across relationships and the average effect size in social psychology research is estimated to be $r = .21$ (Richard et al., 2003)

reported on (Waring & Kelly, 2020). The second wave of data collection occurred from January-March 2020 ($n = 105$); however, recruitment stopped prematurely as a result of the COVID-19 pandemic. Data from 12 participants were removed for failing to comply with study procedures, such as taking significantly below or above the average time to complete online questionnaires or misunderstanding study questions. This removal resulted in a final sample of 189. Even though the sample was smaller than originally intended, the reduction in sample size decreased power by only 5.2%.

Participants in the final sample were predominantly young adults ($M_{\text{age}} = 20.38$, $SD = 3.15$), of White or Asian descent ($n_{\text{White}} = 65$, 34.4%; $n_{\text{Southeast Asian}} = 60$, 31.7%; $n_{\text{South Asian}} = 33$, 17.5%), heterosexual ($n = 150$, 79.4%), and had a body mass index (BMI) within the normal range according to the Centers for Disease Control and Prevention ($M_{\text{BMI}} = 22.59$, $SD_{\text{BMI}} = 4.21$).³ Additionally, about a fifth of the sample ($n = 34$, 18.0%) reported having a past ($n = 31$) and/or current eating disorder (ED; $n = 13$). See Table 5 for further details about participants' ethnicity, sexual orientation, BMI, and ED status.

³ BMI was calculated based on participants' self-reported height and weight

Table 5: *Sample Frequencies and Percentages for Ethnicity, Sexual Orientation, BMI, and Eating Disorder Status*

	Frequency	Percentage (%)
Ethnicity		
White	65	34.4
Southeast Asian	60	31.7
South Asian	33	17.5
Black/African/Caribbean	15	7.9
Other	6	3.2
Arab	5	2.6
West Asian	3	1.6
Latin American	2	1.1
Sexual Orientation		
Heterosexual	150	79.4
Bisexual	15	7.9
Unlabeled	7	3.7
Questioning	5	2.6
Unsure	4	2.1
Missing Value	3	1.6
Lesbian	2	1.1
Other	2	1.1
Gay	1	0.5

Body Mass Index

Below 18.5	22	11.7
18.5 – 24.9	121	64.2
25.0 – 29.9	27	14.4
30.0 and Above	13	7.0
Missing Value	5	2.7

Self-Reported ED Status¹

Past ED	31	16.4
Present ED	13	6.9
Past <u>and/or</u> Present ED	34	18.0
Diagnosed ED ²	5/34	14.7

¹ Participants could endorse having both a past and a current ED

² Only participants who endorsed having a past and/or present ED were asked to self-report on whether they had previously been diagnosed with an eating disorder by a healthcare professional.

Procedure

Part one of the study occurred online and took no more than 30 minutes to complete. Participants were asked to fill out a series of demographic questions, followed by a set of measures that assessed indicators of maladaptive trait body image. Part two took place in the lab at least three days later to prevent potential priming effects. Based on the egocentric social network paradigm, a trained research assistant instructed and guided each participant on how to generate a list of the various people in their lives (i.e., friends, family members, and other important people; Perry et al., 2018). The research assistant then semi-randomly selected 10

people for each individual out of the larger list they generated. The semi-random selection procedure ensured that the selected set of people was proportionally representative of the composition of family, friends, and other important people in participants' larger list. Participants provided brief details on the demographic and characteristics (e.g., sex, body size) for each of the 10 people, and then reported on their typical level of body appreciation, intuitive eating, and appearance orientation when interacting with each of them.⁴ Finally, participants were debriefed and compensated for their participation.

Measures

Relational body image. In line with Waring and Kelly (2020), for each of their 10 selected relationships, participants completed three measures of relationship-specific body image. In the current paper, we refer to these measures as Relational Body Appreciation, Relational Appearance Orientation, and Relational Intuitive Eating. See Waring and Kelly (2020) for further details about the creation of these measures.

Relational body appreciation. Relational body appreciation was measured using a composite of three adapted items from the trait Body Appreciation Scale-2 (BAS-2; Tylka & Wood-Barcalow, 2015). For example, "When I am with Person X, I am comfortable with my body." Trait body appreciation appears to assess unique body image attitudes as it demonstrates predictive power over and above trait measures of body dissatisfaction (Tylka & Wood-Barcalow, 2015). Relational body appreciation was found to have strong internal consistency in the initial study (Waring & Kelly, 2020).

⁴ Further details on the egocentric network approach used in the second part of the study are described in (Waring & Kelly, 2020).

Relational appearance orientation. Relational appearance orientation was measured using a composite of three adapted items from the Appearance Orientation subscale of the Multidimensional Body-Self Relations Questionnaire (MBSRQ; Brown et al., 1990). For example, “If I know I am going to be seeing Person X, I usually spend a lot of time getting ready.” The measure focuses on behavioural investment in appearance given that women tend to report greater behavioural investment than men (Muth & Cash, 1997). Adequate internal consistency was obtained in the initial relational body image study (Waring & Kelly, 2020).

Relational intuitive eating. Lastly, relational intuitive eating was measured using a composite of three adapted items from the Unconditional Permission to Eat subscale of the Intuitive Eating Scale-2 (IES-2; Tylka & Kroon Van Diest, 2013). For example, “When I am with Person X, I allow myself to eat what food I desire at the moment.” There is strong evidence to suggest that intuitive eating is related to numerous adaptive body image and eating constructs (Linardon et al., 2021). Good internal consistency was obtained in the initial relational body image study (Waring & Kelly, 2020).

Indicators of Maladaptive Trait Body Image

Individual indicators of maladaptive body image. The six-item Body Comparison subscale of the Body, Eating, and Exercise Comparison Orientation Measure (BEECOM; Fitzsimmons-Craft, Bardone-Cone, & Harney, 2012) measured participants’ tendency to engage in body-related comparisons. Body comparison orientation has been shown to uniquely contribute to body dissatisfaction (Fitzsimmons-Craft, Harney, et al., 2012).

The 8-item Body Surveillance and Body Shame subscales of the Objectified Body Consciousness Scale (OBSC; McKinley & Hyde, 1996) respectively measured participants’ tendency to engage in self-surveillance and general feelings of shame towards their bodies. Both

body surveillance and body shame have been linked to body image difficulties (Moradi & Huang, 2008).

In addition, the 5-item Thin-Ideal Internalization subscale of the Sociocultural Attitudes Towards Appearance Questionnaire-4 (SATAQ-4; Schaefer et al., 2015) measured participants' level of thin-ideal internalization. Internalization of the thin-ideal is a well-known risk factor for body dissatisfaction and disordered eating among women (Cafri et al., 2005; Stice, 2002).

Social indicators of maladaptive body image. The 4-item Family, Peers, and Media Pressures subscales from the Sociocultural Attitudes Towards Appearance Questionnaire-4 (SATAQ-4; Schaefer et al., 2015) measured perceived pressure to be thin from sociocultural influences. Extensive correlational and experimental evidence for the sociocultural or tripartite model suggests that perceived pressure to be thin from family, peers, and the media are important risk factors for body dissatisfaction and eating disorder symptomology in women (Tiggemann, 2011).

Data Analytic Approach

All central analyses were conducted in R.4.0.0. (R Core Team, 2018).

Multiverse analysis

We used multiverse analysis to investigate our findings across several methodological choices (Steege et al., 2016). In total, we examined our results across four different sets of methodological choices (see Table 6):

1) Calculation of within-person variability

We used both the within-person SD and the relative standard deviation (RSD) to calculate within-person variability in relational body image. Through a statistical correction, the RSD computes a variability score based on a participant's maximum

possible variability given their personal mean and the scale endpoints. We chose to use the RSD to correct for mean-variability dependence artifacts as it is increasingly used in within-person variability research outside of body image (Dejonckheere et al., 2019; Kalokerinos et al., 2020a). However, the RSD has its limitations. Due to the way it is calculated, if a participant's personal mean score is exactly at the lower or upper bound of a scale (i.e., a participant's mean relational body appreciation across their 10 people is 5/5 and no within-person variability is reported), then a within-person RSD cannot be calculated as the maximum possible variability equals zero. In addition, for participants whose personal mean scores are very close to scale bounds (e.g., a participant's mean relational body appreciation across their 10 people = 4.9/5 and very little within-person variability is observed), the RSD calculation can overcorrect for mean-variability dependence (Mestdagh et al., 2018). As a result, within-person RSD scores can be overinflated (e.g., a participant's within-person SD = 0.2 and their within-person RSD = 1.0). In the current study, the RSD was calculated using the *relative variability* package (Mestdagh et al., 2018).

2) *Personal means as a covariate*

We examined whether within-person variability in relational body image predicted trait body image both controlling for and not controlling for personal mean relational body image scores. Some researchers argue that within-person RSDs do not sufficiently control for the confound between mean and variability scores and choose to include a mean covariate to allow for an examination of the unique contribution of within-person variability when predicting trait measures (Wenzel & Kubiak, 2020). Others state that mean covariates do not need be included in analyses when using the within-person RSD

to calculate variability as including a mean covariate can risk biasing results through suppression effects (Kaloerinos et al., 2020a, 2020b).

3) *Independent variables measures: Relational body image*

We measured our independent variable of relational body image using three separate measures for convergent validity (see Table 6). The current analysis allowed us to examine whether statistically significant associations hinge on a particular operationalization(s) of the independent variable.

4) *Dependent variable measures: Indicators of maladaptive trait body image*

Similarly, we measured our dependent variables using seven different indicators of maladaptive body image (see Table 6).

The combination of these four choices resulted in 84 ($2 \times 2 \times 3 \times 7$) different model specifications and thus the hypothesis was tested in 84 analyses (see Table 6). First, we used permutation analysis (Simonsohn et al., 2020) to consider all model specifications jointly and examined whether our 84 results, combined, were inconsistent with the null hypothesis that within-person variability in relational body image is unrelated to maladaptive body image. Subsequently, we examined the proportion of significant p -values and median effect sizes for each set of results that corresponded to the different model specifications.

Table 6: *Model Specifications for Testing Study Hypothesis*

1. Calculation of Within-Person Variability
 - a. Within-Person SD
 - b. Within-Person RSD
 2. Personal Means as Covariate
 - a. Within-Person Variability as Sole Predictor
 - b. Include Mean Covariate
 3. Independent Variable Measures: Relational Body Image
 - a. Relational Body Appreciation
 - b. Relational Appearance Orientation
 - c. Relational Intuitive Eating
 4. Dependent Variable Measures: Indicators of Maladaptive Trait Body Image
 - a. Body Shame
 - b. Body Surveillance
 - c. Body Comparison
 - d. Thin-Ideal Internalization
 - e. Pressure: Family
 - f. Pressure: Peers
 - g. Pressure: Media
-

Open research practices

The full dataset, all study materials, and data analytic code are publicly available via the Open Science Framework and can be accessed at https://osf.io/gzw78/?view_only=ddb00352992f481a9a32b66a284c450b.

Results

Preliminary analyses

Descriptive statistics

Participant means and reliabilities are provided for all study variables (see Table 7). All study variables demonstrated good-excellent reliability. Mean values for the maladaptive trait body image measures were within one standard deviation of those found in other college samples (Fitzsimmons-Craft, Bardone-Cone, & Harney, 2012; Fitzsimmons-Craft, Harney, et al., 2012). For one-time trait variables, reliability was calculated using Revelle's Omega Total (Omega R; McNeish, 2018). For aggregate trait variables (i.e., mean scores across relationships), a multilevel-CFA procedure for estimating omega in hierarchical data was used to assess reliability (Omega B; Geldhof et al., 2014).

Table 7: *Descriptive Statistics for Study Variables*

Study Variables	Possible Range	<i>M</i>	<i>SD</i>	Reliability	
				Omega R	Omega B
Body Comparison	1 – 7	4.54	1.67	.97	n/a
Body Surveillance	1 – 7	4.75	1.03	.90	n/a
Body Shame	1 – 7	3.76	1.30	.91	n/a
Thin-Ideal Internalization	1 – 5	3.35	0.81	.79	n/a
Pressures-Family	1 – 5	2.75	1.27	.94	n/a
Pressures-Peers	1 – 5	2.15	1.07	.92	n/a
Pressures-Media	1 – 5	3.77	1.16	.96	n/a
Relational Body Appreciation	1 – 5			n/a	.97
Personal Mean		4.05	0.72		
Within-Person SD		0.57	0.35		
Within-Person RSD		0.45	0.22		
Relational Appearance Orientation	1 – 5			n/a	.78
Personal Mean		2.50	0.63		
Within-Person SD		0.93	0.39		
Within-Person RSD		0.51	0.19		
Relational Intuitive Eating	1 – 5			n/a	.85
Personal Mean		3.96	0.73		
Within-Person SD		0.64	0.35		
Within-Person RSD		0.48	0.22		

Note. For relational body image measures only, *M* and *SD* values represent the aggregate *M* and aggregate *SD* based on each participant's mean and standard deviation across her ten relationships.

A number of participants reported personal means on the scale bounds for each relational body image measure. As a result, relational body appreciation analyses involving the within-person RSD had the largest number of participants excluded ($n = 19$), followed by intuitive eating ($n = 10$), and appearance orientation ($n = 2$). With the exception of one participant, all participants excluded exhibited high positive relational body image (e.g., personal mean of 5/5 for body appreciation across all 10 relationships). Relatedly, distributions of mean scores for relational body appreciation, appearance orientation, and intuitive eating were left skewed (-.83, -.01, -.50, respectively). As such, for relational body appreciation and intuitive eating, in particular, it was common for participants to report positive body image scores near the scale ceiling.

Zero-order correlations: Relational body image

Zero-order correlations between relational body image variables are shown in Table 8. Personal mean scores on all three relational body image measures were significantly correlated with one another $|.18| < r_s <|.53|$. Participants' reporting appeared to be consistent across the three measures; for example, women who reported higher mean body appreciation across their relationships were also more likely to report higher mean intuitive eating and lower mean appearance orientation. As well, participants tended to report similar amounts of variability across relationships regardless of the specific body image measure used. The within-person SDs of all three relational body image measures were positively correlated, $.35 < r_s < .54$ as were the RSDs, $.19 < r_s < .35$.

The personal means for all three relational body image measures were significantly correlated with the corresponding within-person SD scores, $|.25| < rs <|.55|$. In general, when measured with an SD, higher within-person variability in relational body image was related to less adaptive body image, that is, lower mean body appreciation and mean intuitive eating and higher mean appearance orientation. In addition, and contrary to past research (Mestdagh et al., 2018), within-person RSD scores for all three relational body image measures remained significantly correlated with the corresponding personal means and maintained a similar strength of association, $|.13| < rs <|.43|$. Unexpectedly, the correlations between within-person RSD and personal mean scores were in the opposite direction of the correlations between within-person SD and personal mean scores (see Table 8). The RSD-mean correlations suggest that greater within-person variability in relational body image was related to *more adaptive* body image (i.e., greater mean relational intuitive eating and body appreciation, and less mean relational appearance orientation). These results are unexpected given that the within-person RSD is intended to remove mean-variability dependence which typically results in more null effects; however, in some cases, the RSD can *overcorrect* variability scores (Mestdagh et al., 2018)

Finally, within-person SD and RSD scores for corresponding relational body image measures were positively correlated, $.33 < rs < .87$. Of note, the correlation between the within-person SD and RSD scores for appearance orientation was the strongest ($r = .87$). This correlation in part reflects the fact that fewer participants reported mean relational appearance orientation scores near or at the scale bounds compared to the body appreciation and intuitive eating variables (see Descriptive Statistics), resulting in a smaller correction to RSD scores.

Table 8: Zero-Order Correlations for Aggregate Relational Body Image Measures

		Body Appreciation			Appearance Orientation			Intuitive Eating		
		<i>M</i>	<i>SD</i>	<i>RSD</i>	<i>M</i>	<i>SD</i>	<i>RSD</i>	<i>M</i>	<i>SD</i>	<i>RSD</i>
Body Appreciation	<i>M</i>		-.42**	.44**	-.18*	-.09	.02	.53**	-.42**	-.01
	<i>SD</i>			.36**	.26**	.36**	.22**	-.20**	.54**	.21**
	<i>RSD</i>				.03	.19*	.17*	.19*	.14	.28**
Appearance Orientation	<i>M</i>					.22**	-.14*	-.31**	.30**	-.03
	<i>SD</i>						.87**	-.02	.35**	.32**
	<i>RSD</i>							.11	.24**	.35**
Intuitive Eating	<i>M</i>								-.54**	.31**
	<i>SD</i>									.33**
	<i>RSD</i>									-

Zero-order correlations: Indicators of maladaptive body image

The correlations between all seven trait maladaptive body image dependent variables were also examined (see Table 9). As expected, all the dependent variables were positively correlated with each other. Of note, individual indicators of maladaptive body image (body comparison orientation, body shame, body surveillance, and thin-ideal internalization) showed a stronger intercorrelation pattern ($.56 < rs < .73$) compared to variables that measured social indicators of maladaptive body image (i.e. pressures from family, peers, and media; $.28 < rs < .59$).

Table 9: Zero-Order Correlations for Maladaptive Trait Body Image Measures

	Body Comp.	Body Shame	Body Surveill.	Thin- Ideal	Press. Family	Press. Peers	Press. Media
Body Comp.		.66**	.73**	.64**	.40**	.42**	.71**
Body Shame			.60**	.57**	.44**	.35**	.53**
Body Surveill.				.56**	.30**	.23**	.51**
Thin-Ideal					.39*	.28**	.59*
Press. Family						.48**	.44**
Press. Peers							.44**

* $p < .05$, ** $p < .01$, *** $p < .001$

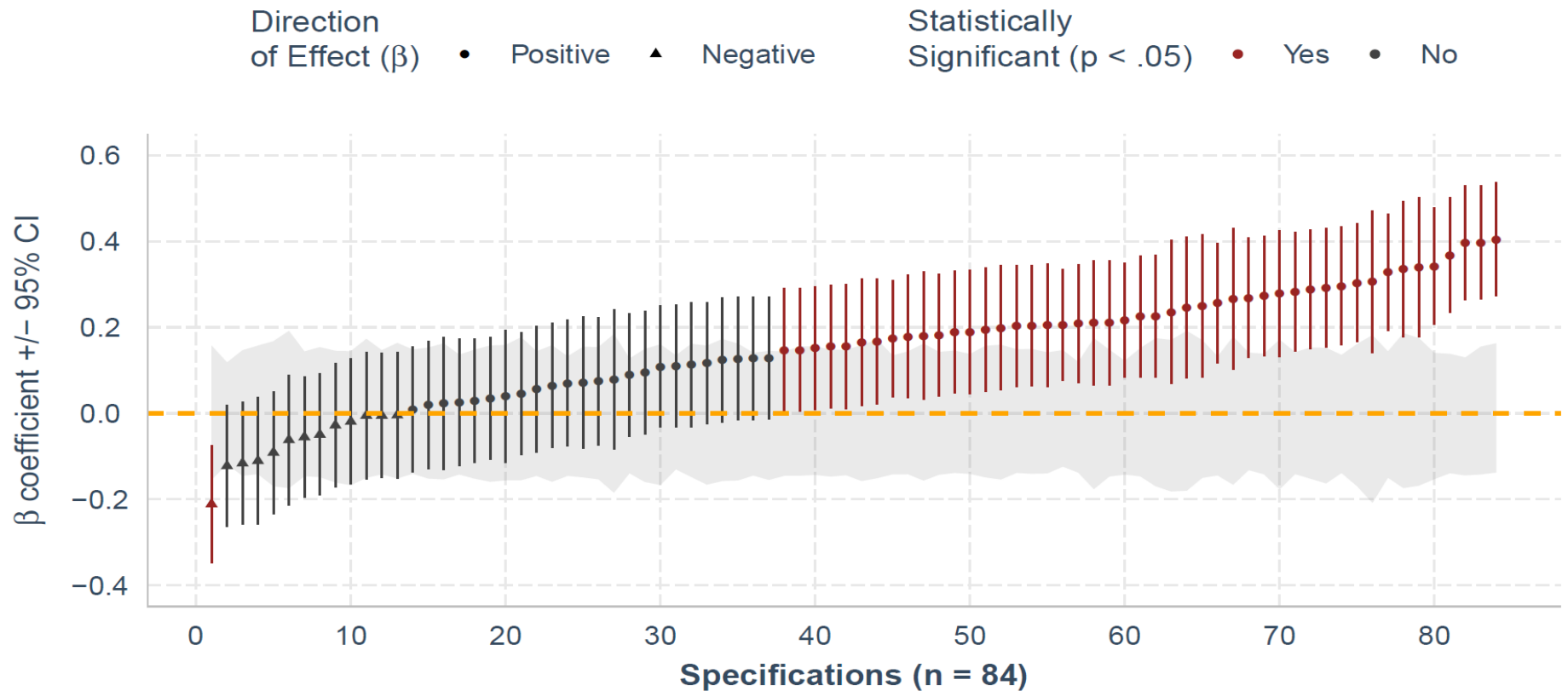
Note. Body Comp. = Body Comparison. Body Surveill. = Body Surveillance. Thin-Ideal = Thin-Ideal Internalization. Press. Family = Pressures-Family. Press-Peers, = Pressures-Peers. Press. Media = Pressures-Media

Central analyses

Summary of results across all model specifications

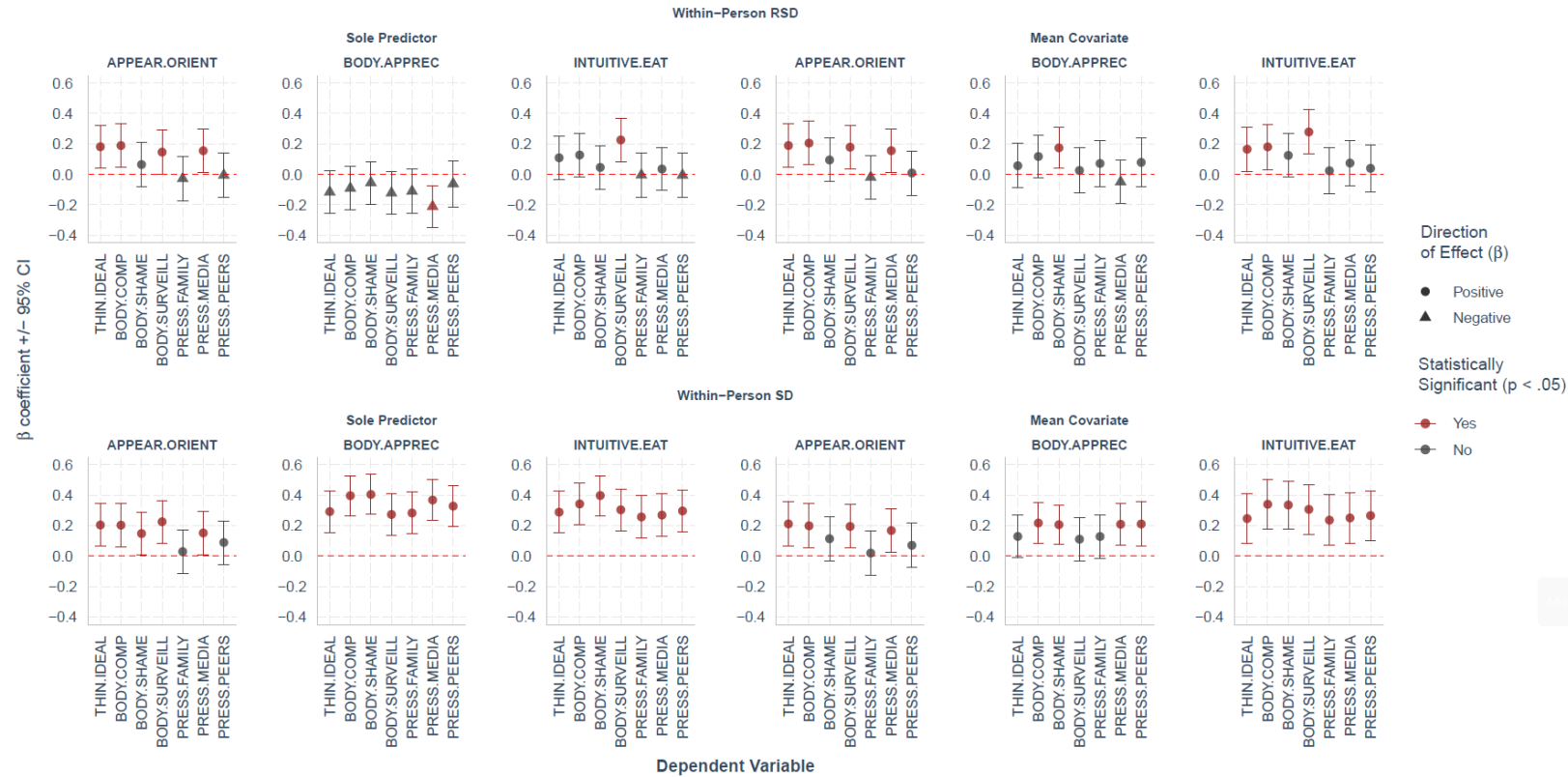
To test our main hypothesis that within-person variability in relational body image would positively predict trait indicators of maladaptive body image, we regressed maladaptive trait body image scores on relational body image within-person variability across all specifications. Figure 4 depicts the distribution of effects across all 84 model specifications compared to the null distribution obtained through permutation testing. Figure 5 plots effect sizes (β) and corresponding confidence intervals for each specification grouped by four different combinations of model specifications (i.e., based on whether within-person variability was analyzed using the SD or RSD and whether the personal mean was controlled for or not).

Figure 4: *Distribution of Effect Sizes Across All Observed and Simulated-Under-the-Null Specifications*



Note. Observed effect sizes (means and error bars) and distribution under the null (gray shaded area) across all specifications ($N = 84$). Y-axis represents the (standardized) β -coefficients and 95% CIs. The β -coefficients are ordered from smallest to largest along the x-axis. Gray area shows 2.5th and 97.5th percentile of expected effects under the null (i.e., assuming the independent variable has no effect on the dependent)

Figure 5: Distribution of Effect Sizes by Specification Type



Note. Observed effect sizes for all specifications ($N = 84$) broken down by within-person variability calculation (RSD vs. SD), personal mean (sole predictor vs. mean covariate), and independent variable measures (APPEAR.ORIENT, BODY.APPREC, INTUITIVE.EAT). Y-axis represents the (standardized) β -coefficients and 95% CIs. APPEAR.ORIENT = Relational Appearance Orientation; BODY.APPREC = Relational Body Appreciation; INTUITIVE.EAT = Relational Intuitive Eating; THIN.IDEAL = Thin-Ideal Internalization; BODY.COMP = Body Comparison; BODY.SHAME = Body Shame; BODY.SURVEILL = Body Surveillance; PRESS.FAMILY = Pressures-Family; PRESS.MEDIA = Pressures-Media; PRESS.PEERS = Pressures-Peers.

We conducted a permutation analysis to test whether the observed distribution of effects could have resulted by chance alone (Simonsohn et al., 2020). This would reveal the likelihood of obtaining the observed results if there was no actual association between within-person variability in relational body image and maladaptive trait body image. Similar to a conventional Null Hypothesis Test (NHST), a small p -value ($< .05$) in this case would suggest that the null should likely be rejected, whereas a large p -value ($> .05$) would suggest insufficient evidence to reject the null.

Across all specifications, 48 (57.1%) out of 84 tests were statistically significant at $p < .05$, with a median effect size of $\beta = 0.16$. To determine whether this observed pattern of statistically significant results could have resulted by chance - that is, in the absence of a true underlying non-zero association between the key variables - we followed Simonsohn and colleagues' (2020) permutation analysis procedure. First, for each of the 84 fitted models, we created a new dependent variable, y_{null} , that only contained residuals, or that contained residuals plus main effect of within-person variability personal mean when a mean covariate was included as a predictor in the original model. Second, we ran multiverse analyses fitting the same initial 84 models using y_{null} as the dependent variable. To compute the overall p -value, the whole set of specifications was fit 1,000 times using bootstrapping (i.e., sampled with replacement). As the effect of within-person variability was removed from the dependent variable, any statistically significant results would be false-positives. Additionally, if the distribution of statistically significant results using residualized maladaptive trait body image as the dependent variable were similar to what was observed initially (i.e., 48/84 tests yielding statistically significant results), we would be able to conclude that the association that emerged initially across all specifications was due to chance.

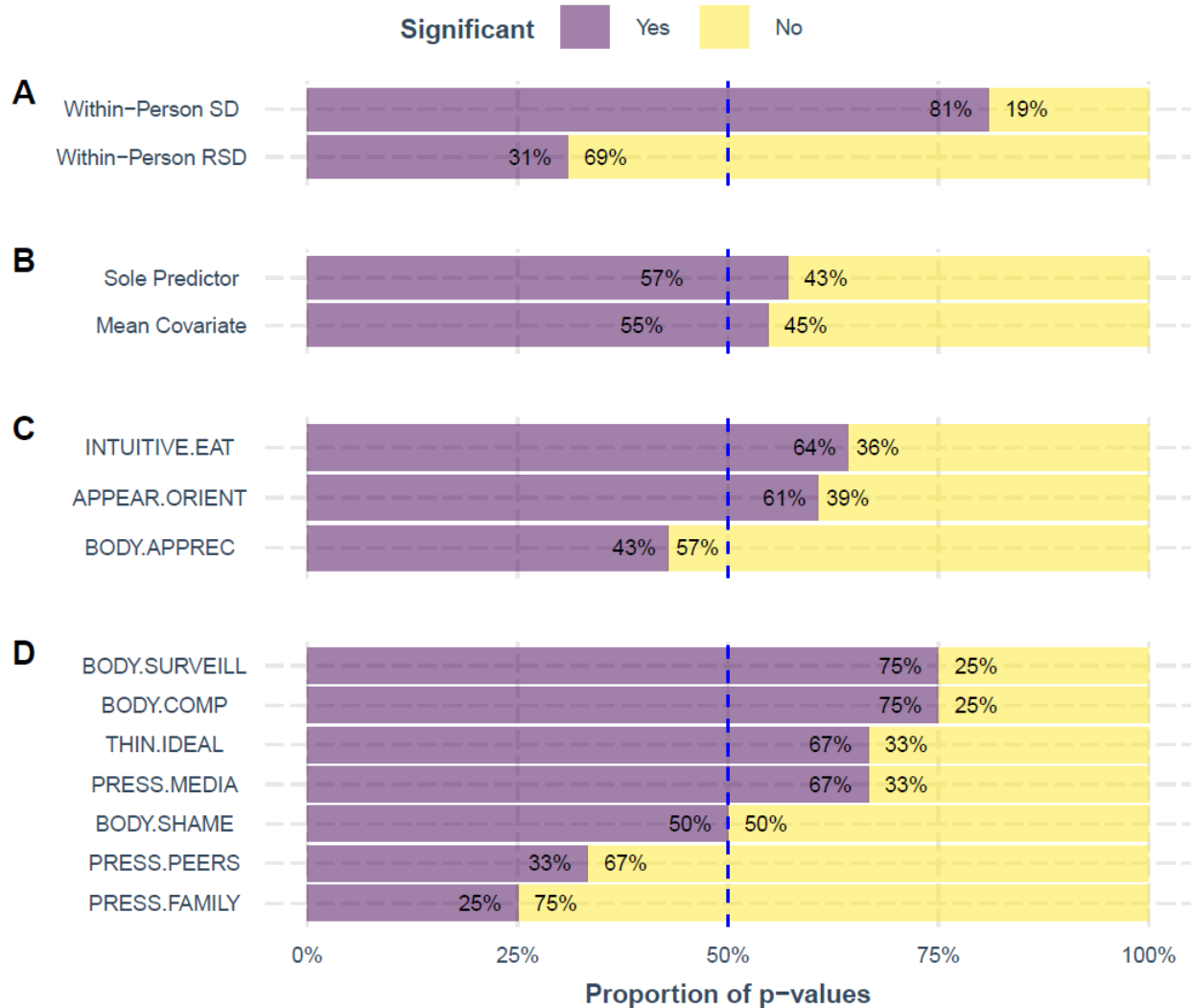
Results from this second multiverse analysis revealed that not a single one of the 1,000 bootstrapped runs yielded the original proportion of statistically significant results (i.e., 48/84 or more), resulting in a p -value of .006 (i.e., one divided by 84 and then divided by 2^5). Consequently, we were able to reject the null hypothesis that the originally observed distribution of effects was due to chance – that is, that it resulted under the null distribution whereby there was no overall association between the independent and dependent variable.

Summary of results across separate model specifications

Figure 6 shows the proportion of statistically significant results, and Table 10 provides the median effect size when considering model specifications related to a) Within-Person Variability Calculations, b) Covariate Decisions, c) Independent Variables, and d) Dependent Variables. Since one of the specifications resulted in a statistically significant effect in the direction *opposite* to what was predicted (i.e., a negative association between variability in relational body appreciation and pressures-media), we coded it as not significant.

⁵ Although technically not a single one of the 1000 runs yielded the same or greater number of statistically significant results, one is the lowest number that can be reasonably used to compute a p -value (since $0/84 = 0$).

Figure 6: *Proportion of Statistically Significant Results by Model Specification Type*



Note. Proportion of statistically significant results (i.e., $ps < .05$) by specification type: within-person variability calculation (Panel A), mean covariate (Panel B), within-person variability predictors (Panel C), and maladaptive trait body image (Panel D). Results are ordered from largest proportion of statistically significant results to smallest within each specification type. Vertical blue dotted line indicates 50% cutoff. INTUITIVE.EAT = Relational Intuitive Eating; APPEAR.ORIENT = Relational Appearance Orientation; BODY.APPREC = Relational Body Appreciation; BODY.SURVEILL = Body Surveillance; BODY.COMP = Body Comparison; THIN.IDEAL = Thin-Ideal Internalization; BODY.SHAME = Body Shame; PRESS.FAMILY = Pressures-Family; PRESS.MEDIA = Pressures-Media; PRESS.PEERS = Pressures-Peers.

Table 10: *Median Effect Size Across Methodological Choices: Within-Person Variability Calculations, Covariate Decisions, Independent Variables, and Dependent Variables*

Model Specifications	Median β
Within-Person Calculation	
Within-Person SD	.23
Within-Person RSD	.07
Covariate Decision	
Sole Predictor	.15
Mean Covariate	.17
Independent Variables	
Relational Intuitive Eating	.24
Relational Appearance Orientation	.15
Relational Body Appreciation	.12
Dependent Variables	
Body Comparison	.20
Body Surveillance	.21
Body Shame	.14
Thin-Ideal Internalization	.18
Pressures-Family	.03
Pressures-Peers	.07
Pressures-Media	.16

Summary of results based on calculation of within-person variability. We found stronger support for the study hypothesis when the within-person SD, rather than the RSD, was used to calculate within-person variability in relational body image. Across all the combinations of independent and dependent variables, and across analyses with and without the mean covariate, greater variability in relational body image significantly predicted more maladaptive trait body image in 81% of the analyses (N analyses = 41) when a within-person SD was used. The median effect size across all analyses using the within-person SD was $\beta = .23$. In contrast, when the within-person RSD was used to calculate variability, greater variability in relational body image significantly predicted more maladaptive body image in only 31% of analyses (N analyses = 41). The median effect size when using the within-person RSD was $\beta = .07$, indicating a trivial effect (Funder & Ozer, 2019).

Summary of results based on covariate decision. Similar support for the study hypothesis was found when using within-person variability as a sole predictor and when including a covariate predictor. All combinations of independent and dependent variables were run using both bivariate (no mean covariate) and multiple regressions (including mean covariate in addition to the focal within-subject variability predictor). When only variability in relational body image was used to predict maladaptive body image, we found support for our hypothesis in 57% of the analyses (N analyses = 41). The median effect size across the bivariate regression analyses was $\beta = .15$. When a mean covariate was included as a predictor in the regression in addition to variability in relational body image, we found support for our hypothesis in 55% of the analyses (N analyses = 41). The median effect size for variability in relational body image across the multiple regression analyses was $\beta = .17$.

Summary of results based on independent variables: Relational body image

measures. Findings were most in line with the study hypothesis when within-person variability was measured using relational intuitive eating and relational appearance orientation rather than relational body appreciation. Across different calculations of within-person variability, and across analyses with or without a mean covariate, greater within-person variability in relational intuitive eating was a significant predictor of more maladaptive body image in 64% of the analyses (N analyses = 28) with a median effect size of $\beta = .24$. Similarly, greater within-person variability in relational appearance orientation was a significant predictor of more maladaptive body image in 61% of analyses (N analyses = 28) with a median effect size of $\beta = .15$. Within-person variability in body appreciation showed a slightly different pattern. Greater within-person variability in relational body appreciation was a significant predictor of more maladaptive body image in only 43% of the analyses (N analyses = 28) with a median effect size of $\beta = .12$.

Summary of results based on dependent variables: Indicators of maladaptive trait

body image. Support for the study hypothesis varied across the different indicators of maladaptive trait body image. All seven indicators of maladaptive trait body image were separately predicted by each relational body image measure across analyses with different calculations of within-person variability and with or without a mean covariate. We found statistically significant support for our hypothesis in more than 50% of the results (N analyses = 12) only when predicting body surveillance (75%), body comparison (75%), thin-ideal internalization (67%), and pressures-media (67%). Effect sizes of β s > .20 for within-person variability in relational body image were only found when predicting body comparison and surveillance. For all other dependent variables, statistically significant support for our hypothesis

was found in less than 50% of the results (see Figure 6), and all median effect sizes were β s < .20 (see Table 10).

Discussion

The aim of the current study was to resolve some of the ambiguity around the validity of conceptualizing within-person variability in body image as a marker of body image disturbances (Fuller-Tyszkiewicz, 2019). Given this aim, we made several unique efforts to improve the robustness of our results. First and foremost, the current study addressed the context-insensitivity of existing body image variability research by measuring within-person variability in body image across participants' specific relationships. Importantly, we also made efforts to protect against mean-variability dependence artifacts by including the RSD as one of our two measures of within-person variability. Lastly, we used multiverse analysis to ensure our results were not unduly influenced by any single methodological decision.

The results of this study are both simple and complex. Simply put, findings suggest that greater within-person variability in relational body image positively predicts indicators of maladaptive body image. The permutation analysis clearly demonstrated that the general pattern of effects observed across our specification models is not consistent with a null effect. The support obtained for our hypothesis has important implications. Most notably, further research on within-person variability in body image appears to be warranted. The extent to which our study addressed limitations of past research and incorporated new recommendations instills confidence in the current findings despite past null findings (Fuller-Tyszkiewicz et al., 2015, 2018; Lattimore & Hutchinson, 2010; Rogers et al., 2017). Nonetheless, the results of the current study still need to be replicated and expanded on before we can be certain that within-person variability in body image is a fruitful area of future study.

One recommendation for future research on within-person variability in body image is the continued use of context-sensitive measurement. In the current study, all body image self-reports were relational and as there were no other contexts assessed, we cannot conclude with certainty that measuring body image within the context of specific relationships allowed for more systematic measurements of variability. Future research would need to directly manipulate the context-sensitivity of body image variability measurements to validate this hypothesis. Nonetheless, the current study did incorporate a range of different methodological options, some of which have been shown to increase the chance of finding null effects (i.e., RSD; Kalokerinos et al., 2020a; Mestdagh et al., 2018). Yet even when including model specifications that did not lend support to our hypothesis, the overall pattern of results still provided strong evidence for rejecting the null hypothesis. Context-sensitive measurements may have been one reason why we were still able to detect a signal despite the noise. While assessing body image across specific relationships appears to be one way to increase the context-sensitivity of variability measurements, it is likely not the only way. As has been suggested in other fields (Lapate & Heller, 2020), greater incorporation of body image theory into measurement practices could help increase measurement accuracy and precision in within-person variability research.

The more complex results of the current study concern the different patterns of findings observed across various model specifications. With the exception of models that included personal means as covariates, each set of methodological choices (i.e., calculation of within-person variability, independent variable measures, and dependent variables) resulted in model specifications that provided differing levels of support for our hypothesis. We will discuss the implications of these results separately as each set of methodological choices has unique considerations.

Calculation of Within-Person Variability

Our multiverse analyses clearly demonstrated that there was much less support for trait-level variability effects when the within-person RSD, as opposed to the SD, was used to calculate within-person variability. This begs the question: how should future researchers calculate within-person variability? This question is still unresolved in other fields (Kalokerinos et al., 2020a, 2020b; Wenzel & Kubiak, 2020), yet perhaps the most important consideration for future researchers is how strongly they believe the accuracy of participants' reports when they contain little to no within-person variability (Mestdagh et al., 2018). The RSD calculation is based on the assumption that these no-low variability scores are an artifact of scores being constrained by means falling close to the scale bounds. However, a separate interpretation is that people who have high or low mean body image actually experience little change in their body image and thus their low variability scores are accurate and meaningful.

Given our non-clinical college sample, it is unsurprising that in the current study the participants with the lowest variability scores were primarily individuals with high mean (adaptive) body image. There is no way to know for certain whether these participants' low variability scores were an artifact of scale bounds or a genuine phenomenon. However, in the current study, there is reason to believe the within-person RSD may have overcorrected truly low variability scores. First, the in-lab study procedure made it more likely that variability scores were accurate. A trained research assistant explained the relational body image rating process directly to each participant and was present while they completed their ratings. Thus, it seems more likely that participants were intentional when reporting similarly high body image across multiple relationships, and the in-lab procedure likely also allowed for higher internal validity. Second, the study results suggest overcorrections when the within-person RSD was used. In past

research, the use of an RSD to calculate within-person variability tended to remove statistically significant correlations between personal mean and variability scores (Mestdagh et al., 2018). However, in the current study, RSD scores unexpectedly remained significantly correlated with relational body image mean scores, yet with a reversed directionality. Similarly, the relationship between variability in relational body appreciation and media pressures also changed directions when a within-person RSD was used to calculate variability as compared to a SD. These abnormal results indicate that the RSD may have overcorrected, and thus distorted, low variability scores in the current study.

Nonetheless, both relational body image (Waring & Kelly, 2020) and the within-person RSD (Mestdagh et al., 2018) are relatively new constructs and more research is needed. Importantly, empirical research is needed to confirm the conceptualization of body image as relatively stable and trait-like within a given relationship (Waring & Kelly, 2020). As such, we recommend future research continue to examine results across a number of different methods for calculating variability.

Measures of Independent and Dependent Variables

The operationalization of study constructs also influenced our results. In terms of relational body image, body appreciation was less likely to predict trait-level disturbances in body image compared to intuitive eating and appearance orientation. Notably, more participants reported no-low variability in body appreciation across their relationships compared to the other two measures. The potential overcorrection of these no-low variability scores by the RSD is likely a contributor to the different pattern of effects observed with relational body appreciation. However, in assuming that the no-low variability scores in the current study are accurate, an explanation is still needed for why participants more often reported no-low variability in

relational body appreciation as compared to the other body image variables. One clear difference across constructs is that body appreciation reflects a body image attitude as opposed to a behaviour. It may be that participants are less likely to experience, notice, and/or accurately report on changes in body image attitudes across their relationships as opposed to changes in their behaviours. Indeed, in the original relational body image paper, the highest intra-class correlation was observed for body appreciation suggesting a similar interpretation (Waring & Kelly, 2020). Future research on within-person variability may want to consider measuring body image behaviours in addition to body image attitudes. Of note, the Body Image States Scale, which is often used in within-person variability research, measures only body image attitudes and not body image behaviours (e.g., Melnyk et al., 2004; Rudiger et al., 2007; Fuller-Tyszkiewicz et al., 2015).

Similarly, there was divergent support for trait-level variability effects across the different measures of maladaptive trait body image. Within-person variability in relational body image most strongly and consistently predicted greater trait body comparison and body surveillance, and to a lesser degree, thin-ideal internalization and pressures-media. Similarly, past research on within-person variability has more consistently found trait-level variability effects when predicting *risk factors* of body image and maladaptive eating, such as greater investment in appearance (Melnik et al., 2004; Rudiger et al., 2007), rather than maladaptive body image and eating themselves (e.g., Rudiger et al., 2007; Saules et al., 2009). Interestingly, both the tripartite model (Thompson et al., 1999) and objectification theory (Fredrickson & Roberts, 1997) posit a three-stage process of maladaptive body image development. External social pressures are thought to influence the development of maladaptive body image directly but also indirectly through increasing the likelihood that individuals adopt “risky” body image

behaviours and/or attitudes (i.e., body surveillance, body comparison). Our results suggest that perhaps within-person variability is a more reliable marker of these middle stage risk factors rather than traits associated with the beginning or later stages of maladaptive body image developments, that is, external interpersonal pressures and body image disturbances such as body shame. More research is needed to determine whether within-person variability more reliably predicts individual-level risk factors for maladaptive body image. Nonetheless, if additional data support this hypothesis, within-person variability in body image levels may offer a novel way to identify at-risk individuals for whom treatments could be more preventative.

Covariate Decisions

Whether or not a mean covariate was included in analyses did not seem to influence how consistently the results supported our hypothesis. However, there continue to be mixed recommendations about including a mean covariate when using a within-person RSD (Kalokerinos et al., 2020a, 2020b; Wenzel & Kubiak, 2020). In addition, researchers should generally be cautious about using incremental validity testing, in part due to the risk of Type 1 error inflation (Wang & Eastwick, 2020). As such, we would still recommend that future within-person variability research compare results with and without a mean covariate to ensure the robustness of findings, especially when using standard multiple regressions (Wang & Eastwick, 2020).

Other Methodological Considerations

The current study differed from past research on within-person variability in body image in several related but significant ways. Perhaps most importantly, past body image research has tended to use EMA designs to assess variability as it naturally occurs in daily life (e.g., Fuller-Tyszkiewicz et al., 2015; Melnyk et al., 2004; Rudiger et al., 2007), whereas the current study

assessed variability at one time point in-lab. Prior research has found that in-lab studies tend to have higher signal-to-noise ratios, and thus higher data quality, than EMA studies (Dejonckheere & Mestdagh, 2021; Dejonckheere et al., 2020). This difference in data quality is not surprising given that in-lab procedures allow variability to be measured in a more targeted way than is typical in traditional EMA studies (Dejonckheere et al., 2020). As an example, variability in the current study was measured by anchoring participants' body image self-reports to contextual stimuli through asking participants to reflect on their body image levels across their different relationships. In contrast, past EMA studies on within-person variability have not typically anchored self-reports of state body image to contextual features but instead to time intervals, such as once every day (but see Lattimore & Hutchinson, 2010). As well, in the current study, participants completed all their self-reports of relational body image over a period of approximately half an hour whereas past EMA research has tended to collect state body image reports over periods of days or weeks (e.g., Fuller-Tyszkiewicz et al., 2015; Melnyk et al., 2004; Rudiger et al., 2007). Taken together, more targeted measurement of variability in the current study may help to explain why our results demonstrated a more consistent relationship between within-person variability and trait body image than past studies (Fuller-Tyszkiewicz, 2019; Fuller-Tyszkiewicz et al., 2015, 2018; Lattimore & Hutchinson, 2010; Rogers et al., 2017).

Given that EMA and in-lab studies have complementary pros and cons, it is important to find strategic ways to measure variability using both types of designs. Promisingly, a growing body of research is investigating how to increase the data quality of EMA studies through study design (e.g., Dejonckheere & Mestdagh, 2021; Dejonckheere et al., 2020; Kuppens et al., 2022; Wirth et al., 2022). Firstly, as the current study suggests, one way to increase the “signal” in traditional EMA studies is to employ contextually-sensitive measurement by anchoring self-

reports to naturally occurring situations, or features of situations, that are hypothesized to elicit variability (Dejonckheere & Mestdagh, 2021). For example, by using event-contingent sampling, state body image assessments could be completed every time participants have interactions with significant others who are important to them (see Nezlek, 1999 for a similar study design). Secondly, as a rule of thumb, shorter time intervals between self-report assessments tend to increase signal-to-noise ratios (Dejonckheere & Mestdagh, 2021; Kuppens et al., 2022). While increasing the absolute number of assessments can be burdensome on participants, it is possible to administer more frequent assessments over a short but strategically selected period of time (Dejonckheere & Mestdagh, 2021; Kuppens et al., 2022), for example, only during interactions with specific others who elicit strongly negative or positive relational body image from the participant. Lastly, EMA studies can decrease “noise” through ensuring the validity and reliability of assessment measures (Dejonckheere et al., 2020; Kuppens et al., 2022; Wirth et al., 202).

Limitations and Future Directions

The current study has both strengths and weaknesses. Most notably, we conceptualized and measured within-person variability in a novel way through the use of the relational body image construct. While we have outlined the ways in which this decision is a strength, it is also a limitation in that our study differed significantly from past studies in terms of conceptualization, measurement, and collection of variability data. As such, additional research is needed before we can generalize our findings to the existing within-person variability research in body image. We also collected data from a convenience sample of female-identified college students and so participants had more adaptive mean body image. Collecting data from a clinical sample will be an important next step in order to examine trait-level variability effects in individuals with low

mean body image. Lastly, more research on relational body image, and its measurement, is needed. To date there has only been one other study investigating relational body image, and so we relied on these previous measures and conceptualizations of relational body image despite known methodological weaknesses (Waring & Kelly, 2020).

Despite these limitations, the construct of relational body image seems to offer exciting new possibilities. Promising preliminary work on relational body image demonstrated that a given individual's body image varies systematically across their relationships (Waring & Kelly, 2020), and our study adds to this research by suggesting that the amount of within-person variability an individual experiences across their relationships is meaningfully related to their trait levels of maladaptive body image. There is thus growing evidence to suggest that directly targeting relational contributors to body image difficulties may jointly improve an individual's typical body image *and* reduce risk factors for the worsening of body image. Despite the incorporation of relational factors into some existing body image treatments (e.g., Piran, 2019; Yager, 2019), to our knowledge, no current body image interventions focus primarily on the impact of specific relationships. However, it is encouraging that relationally-based approaches have been developed and have been found to be efficacious with common comorbidities of body image difficulties including eating disorders (e.g., Tasca, 2016; Tasca et al., 2012), perfectionism (Hewitt et al., 2017), and depressive symptoms (Tasca et al., 2007).

A major focus in these relational approaches is intervening with maladaptive perceptions and experiences of important others that may have been acquired in early life but have become schematized and thus over-applied to other relationships (Levenson, 2017; Tasca et al., 2021). Research on other concepts that incorporate variability in sense of self as a vulnerability factor for maladaptive functioning, such as unstable self-esteem and borderline personality disorder,

suggests that early experiences of inconsistent responsiveness from caregivers may be foundational in the development of an anxious attachment style that then comes to characterize an incoherent, externally-responsive, and thus variable sense of self (Fonagy et al., 2003; Foster et al., 2005). Similar mechanisms may be at play with relational body image. Future research could investigate the merit of incorporating a focus on key attachment relationships in body image treatment. Working to change previously learned but presently unhelpful ways of relating to self and others may help reduce the amount of within-person variability a given client experiences in their body image across their different relationships.

The current study also points to the promise of greater integration of theory and research from personality science into body image work. Contemporary theories of personality, such as Whole Trait Theory, increasingly view within-person variability as underpinning stable personality dispositions (see Jayawickreme et al., 2021 for a review). As such, body image research can look to personality science for more complex ways to conceptualize individual differences in within-person variability (Fuller- Tyszkiewicz, 2019). Relatedly, personality science is moving towards a focus on contextualized personality variables. Dispositional variability is now more often viewed as a “signature” that emerges in response to particular cues within a specific situation rather than a general pattern that is observed across situations (see Furr & Funder, 2021). In line with the current study’s results, a growing body of clinically-focused personality research has demonstrated that interpersonal situations are especially likely to give rise to individual differences in within-person variability (see Hopwood, 2018 for a review). Personality research could thus also provide new insights into how interpersonal contexts may uniquely contribute to within-person variability in body image.

Conclusions

We incorporated the concept of relational body image into within-person variability research, and found support for our hypothesis that within-person variability in body image across relationships predicts indicators of maladaptive body image. Our results highlight new possibilities for research on both relational body image and within-person variability, which could advance methods and theory within the field while also inspiring new interventions.

Study 3: The Whole is More than the Sum of its Parts: A Qualitative Investigation of Body-Dissatisfied College Women's Experiences of Relational Body Image

Body image has traditionally been studied as a risk and maintaining factor of eating disorders; however, further research has demonstrated that negative body image is not unique to individuals with eating disorders. In Canada, for example, 0.5%-4% of women have an eating disorder (Canadian Mental Health Association, 2014), and recent statistics suggest that 15%-20% of Canadian women are dissatisfied with their bodies (Carter et al., 2017; Growth from Knowledge, 2015). As such, body dissatisfaction has been acknowledged as an “overlooked public health concern” in its own right (Bucchianeri & Neumark-Sztainer, 2014). Understanding what factors contribute to body image has thus become an important endeavour. At present, a majority of the contemporary research on body image is informed by psychologically-based theories derived through quantitative methods (Andersen & Swami, 2021; Blood, 2005; Riley et al., 2023).

Relational Influences on Body Image

Quantitative research consistently demonstrates that social relationships are an important predictor of body image (e.g., Cook-Cottone, 2015; Fredrickson & Roberts, 1997; Myers & Crowther, 2009; Piran, 2018; Tiggemann, 2011, 2019). The integrated sociocultural model is currently the most evidence-based theory of body dissatisfaction (Fitzsimmons-Craft et al., 2012, 2014; Frederick, Hazzard, et al., 2022; Frederick, Schaefer, et al., 2022; Frederick, Tylka, Rodgers, Convertino, et al., 2022; Frederick, Tylka, Rodgers, Pennesi, et al., 2022). The model outlines how social relationships can be a channel through which sociocultural appearance pressures become internalized at an individual-level and thus contribute to negative body image. Implicitly, then, the model suggests that an important source of one's own body dissatisfaction is

other people's opinions. Other research on body image corroborates the importance of others' opinions including research based on the acceptance model (Avalos & Tylka, 2006). The acceptance model postulates that perceived body acceptance from others is a key predictor of positive body image, and growing empirical evidence from quantitative studies has supported this hypothesis (Andrew et al., 2016; Augustus-Horvath & Tylka, 2011; Avalos & Tylka, 2006; Tylka & Homan, 2015; Waring & Kelly, 2020).

While theoretical models of trait body image have highlighted the importance of close relationships to an individual's body image, our understanding of how exactly relationships come to influence body image is still quite limited. Current theories of body image typically conceptualize and measure both relational factors and body image in an aggregate and global way by considering people's overall experience in their relationships or with their body (e.g., Avalos & Tylka, 2006; Frederick, Tylka, Rodgers, Pennesi, et al., 2022; Swami et al., 2021; Tiggemann, 2011, 2019). However, individuals have a variety of different close relationships and body image may change depending on the person with whom they are interacting. Indeed, the development of state measures of body image has led to the conclusion that, within a given individual, body image fluctuates over time and across specific situations (see Fuller-Tyszkiewicz, 2019 for a review). These studies of state, or within-person, fluctuations in body image have demonstrated that the presence of certain variables within a given situation can trigger changes in an individual's body image.

Interestingly, the two situational factors that have most consistently emerged as predictors of state body image are relational in nature. The first situational factor broadly encompasses interactions with body-preoccupied others. Studies have found that being with people who make negative comments about their own body (i.e., engage in "fat talk") and/or

who generally are concerned with dieting, fitness, and/or their body's weight and shape reliably predicts increases in state body dissatisfaction (Fuller-Tyszkiewicz et al., 2019; Jones et al., 2014; Kelly et al., 2016; Miller et al., 2019; Mills & Fuller-Tyszkiewicz, 2017). The second situational factor pertains to the act of making appearance-related comparisons, particularly with others whose bodies are perceived to be more attractive. Although individuals vary in the frequency with which they make these comparisons, research at the situational level has found that, across individuals, upward or unfavorable appearance comparisons consistently increase levels of state body dissatisfaction (Fardouly et al., 2017; Fitzsimmons-Craft, 2017; Fitzsimmons-Craft et al., 2015; Fuller-Tyszkiewicz et al., 2019; Leahey & Crowther, 2008; Leahey et al., 2007, 2011; Myers et al., 2012; Ridolfi et al., 2011; Thøgersen-Ntoumani et al., 2017).

Although state body image research suggests that the characteristics of other people can meaningfully impact an individual's body image, Waring and Kelly (2020) pointed out that this research tends to measure social factors and body image as anchored to moments in time rather than an interpersonal context. For example, to assess the contribution of appearance comparisons to state body image, researchers typically ask a temporally-oriented question such as, "*Over the past hour*, to what extent have you engaged in appearance comparisons?" rather than a relationally-oriented question such as, "*With whom* did you engage in appearance comparisons?" Waring and Kelly (2020) thus noted that it was unclear whether characteristics known to trigger changes in state body image appeared at random in one's interactions or whether they were systematically linked to certain people in one's life. That is, it could be that certain people more consistently provoke upward appearance comparisons, making body image systematically worse in those relationships. The lack of knowledge in this area led the researchers to investigate

whether the specific people in an individual's life may be important contributors to that individual's body image and whether this may be due in part to the characteristics these specific people possess (Waring & Kelly, 2020).

Building the Concept of Relational Body Image

While no research had empirically investigated the idea of relationship-specific body image prior to 2020, research in social psychology has long considered the role of specific relationships in shaping self-attitudes (e.g., Baldwin, 1992; Chen et al., 2006; Fraley et al., 2011; Harter et al., 1998; Hopwood et al., 2019; Reis, 2009). Indeed, a wealth of research demonstrates that important relationships have a profound impact on the ways individuals understand themselves (e.g., Andersen & Chen, 2002; Andersen & Glassman, 1996; Andersen et al., 1997; Chen et al., 2006, 2011, 2013; Horberg & Chen, 2010; Kraus & Chen, 2009; Reznik & Andersen, 2004, 2007). In particular, empirical research on the relational self, or “who a person is in relation to his or her significant others,” demonstrates that the self is not a static and individual-bounded entity but rather is dynamic and interpersonally-responsive (Chen et al., 2006, p.153). That is, an individual's motivations, beliefs, feelings, and behaviours have been found to fluctuate reliably and predictably across their different important relationships. In addition, the specific characteristics that other people possess are now recognized as a key predictor of which version of one's relational self becomes activated across different relationships (see Chen et al., 2013 for a review).

Waring and Kelly's (2020) conceptualization of relational body image was thus born from integrating research on trait and state body image with research on the relational self. They proposed that individuals may exhibit relationship-specific changes to their body image based on the specific characteristics important others possess. To investigate this hypothesis, egocentric

network methods were used to create relationship-specific measures of common trait body image measures (Perry et al., 2018; Waring & Kelly, 2020). Then, undergraduate women were asked to report on their body image levels in 10 different relationships and to report on the body image-related characteristics their 10 people possessed. Results demonstrated that participants reported considerable variability in their body image across their 10 relationships and that other people's specific characteristics were predictive of changes in relational body image. Namely, participants reported more adaptive body image in relationships with people whom they perceive to be relatively more accepting of their (i.e., the participant's) body, less body preoccupied, and more similar in size to them (Waring & Kelly, 2020).

Waring et al. (2022) built on these results by examining whether there are individual differences in relational body image whereby some women tend to experience larger changes in their body image across their different relationships. Once again, undergraduate women were asked to complete relationship-specific measures of body image across 10 relationships in addition to completing traditional measures of trait body image. Interestingly, regression analyses demonstrated that independent of how positive or negative their average body image levels were, women who experienced more extreme fluctuations in their body image across their 10 relationships also reported greater risk for maladaptive trait body image (Waring et al., 2022).

Limitations of the Current Conceptualization of Relational Body Image

So far, research on relational body image has growing support for conceptualizing body image not as individually anchored but instead as relationship-specific (Waring & Kelly, 2020; Waring et al., 2022). However, the conceptualization of relational body image has been limited by the fact that it has largely been informed by psychological body image research. Such research is more often based upon a positivist epistemological stance, which assumes that

objective truth can be derived through the systematic use of empirical methods (e.g., Blood, 2005; Riley et al., 2023; Thurston, 1999; Toomela, 2014). As such, psychological body image research tends to primarily use quantitative methods.

Not all body image research comes from the psychological body image canon, and a large body of critical-feminist body image work also exists (e.g., Blood, 2005; Bordo, 2009; Chrisler & Johnston-Robledo, 2018; McBride, 2018; McKinley, 2004; Orbach, 1978-2006; Piran, 2018; Rice et al., 2020, 2021; Riley et al., 2023). Critical-feminist body image research is more often underpinned by post-positivist epistemology, which does not assume the presence of any objective “truth” (e.g., Blood, 2005; Riley et al., 2023; Weedon, 1997). Contemporary critical-feminist understandings of body image thus tend to problematize psychological body image research, especially the notion that body image is located within individuals and thus can be measured as separate from the sociocultural context (e.g., Blood, 2005; Rice et al., 2021; Riley et al., 2023). In contrast, critical-feminist perspectives present a much more de-centered, fluid, and contextually-located understanding of body image. As Riley and colleagues (2023) describe, body image research conducted from a critical-feminist lens is directed “away from potential pathologies that lie within a person...and towards seeking a better understanding of their context including socio-historical, political, economic, discursive, and material” (p. 14). Critical-feminist research thus sees body image as being inextricably entwined with social structures.

Despite its focus on macro-level systems, critical-feminist research on body image also centers the lived and embodied experiences of real people, and so often incorporates qualitative methods (e.g., Blood, 2005; Rice et al., 2021; Riley, 2018; Riley et al., 2023). Feminist scholars argue that focusing on idiographic experiences protects against an all-powerful and

undifferentiated view of macro-level influences, and instead demonstrates how systemic factors can be navigated, shifted, and resisted in different ways by different people (e.g., Budgeon, 2021; Riley, 2018; Riley et al., 2023; Thompson et al., 2018).

The Value of Integrating New Perspectives into Relational Body Image

Historically, the different epistemologies and resulting methods of psychological and critical-feminist research on body image have made it difficult for significant integration to occur across these ways of understanding (e.g., Blood, 2005; Riley et al., 2023). However, more contemporary research has promoted further integration between psychological and critical-feminist body image research (e.g., Rice et al., 2021; Tylka & Piran, 2019). Indeed, despite the fact that relational body image has thus far only been studied through quantitative methods with positivist underpinnings, there are certainly points of overlap between a relational conceptualization of body image and critical-feminist understandings. For example, viewing body image as situated in and changing across relationships complements critical-feminist theories that view body image in a more holistic, dynamic, and contextually embedded way (Rice et al., 2021). However, thus far individuals' firsthand experiences of relational body image have not been considered because only quantitative methods have been used to study the construct (Waring & Kelly, 2020; Waring et al., 2022). Incorporating critical-feminist qualitative methods would allow for a more fulsome, complex, and embodied conceptualization of relational body image to develop.

Not only within body image research, but across psychology more broadly, a burgeoning aspiration is to enhance our understanding through the incorporation of different methods, frameworks, and epistemological positions (e.g., Goghari, 2022; Johnston & Boyle, 2018; LaMarre et al., 2022). In fact, contemporary personality research presents a compelling and

relevant example for why research on relational body image may benefit from integrating critical-feminist and psychological understandings of body image. Similar to psychological research on body image, personality research has typically been dominated by trait and state approaches, which have been researched largely through quantitatively-based methods (e.g., Baumert et al., 2019; Furr & Funder, 2021; Jayawickreme et al., 2021). However, outside of this mainstream work, a third way of understanding personality has developed. Narrative identity, or the way individuals construct their personal life stories, has been studied for over 30 years to “capture the rich and specific phenomenological experiences of...individuals” (Adler & Clark, 2019, p. 2).

Traditionally, research on narrative identity has been studied as separate from trait and state approaches to personality because it incorporates different methods (i.e., qualitative) and rests on different theoretical underpinnings (i.e., postmodern, social constructionism, and phenomenological; see McAdams, 2021 for a review). In recent years, though, there has been a growing effort to integrate narrative identity into trait and state approaches to personality as more and more research demonstrates the unique value of this alternative perspective (e.g., Adler & Clark, 2019; Dunlop et al., 2022; McAdams, 2021). In fact, it is now increasingly common for personality to be explored through a three-layer model, which includes trait, state, and narrative identity approaches (McAdams, 2015; Pasupathi & Adler, 2021). Contemporary personality research thus demonstrates how the integration of perspectives that are methodologically and epistemologically distinct can be generative for the broader research field.

Current Study

To date, the conceptualization of relational body image has been largely informed by, and studied through, psychological body image theory and methods. As a result, relational body image research has not yet incorporated critical-feminist perspectives on body image. However, it seems important and valuable to integrate critical-feminist approaches given the theoretical overlap in critical-feminist and relational conceptualizations of body image and given the unique information that qualitative methods can provide. As such, the primary aim of the current study was to explore and better understand body-dissatisfied women's personal experiences of relational body image. To do this, we conducted a qualitative study of relational body image, which was informed by a non-positivist epistemology (see Conceptual Underpinnings of the Research subsection below), and which incorporated mixed-method visual approaches (Reavey & Johnson, 2011). We recruited college-aged females who experienced body dissatisfaction to participate in the study, given that past research has shown that it may be especially important for women who struggle with body image to consider the influence of their different relationships (Waring et al., 2022).

Methodology

Recruitment

Female students were recruited from a large Canadian University, and compensation was course credit. To be eligible for the study, women needed to experience mild-moderate body dissatisfaction as determined by scores between 19-35 on the Body Shape Questionnaire-8C (Welch et al., 2012). Women who self-reported a past or current eating disorder were excluded from the study as we were interested primarily in “normative” experiences of body image, and body dissatisfaction is most often experienced without the presence of an eating disorder

(CMHA, 2014; Growth from Knowledge, 2015). Of note, data were collected from January-April 2021, which was during the COVID-19 pandemic. During the time of interviews, all participants were attending classes online and were experiencing intermittent lock-down orders.

Twenty participants were recruited for the study. As is recommended in “Big Q”, or more purely qualitative studies, sample size was determined by considering the information power of the study (Braun & Clarke, 2013). Studies with narrower study aims, more specific samples, greater use of established theory, higher quality of dialogue, and with an analysis strategy focused on fewer cases all have higher information power and thus require smaller sample sizes (Malterud et al., 2016). The current study had a fairly narrow aim: to explore and better understand personal experiences of relational body image. This aim was then further narrowed by the fact that we only investigated the experiences of a specific sample (i.e., body dissatisfied college women) in response to a specific time-limited visual stimuli (i.e., a visual graph depicting participants’ self-reported body image levels across a subset of their important relationships; see Procedure below). Established theory was also integrated into the study design and analysis, as the lead investigator’s area of expertise is relational body image. In addition, an in-depth one-on-one interview was conducted with each participant, suggesting higher quality dialogue. Lastly, in terms of analytic strategy, a cross-case analysis was used instead of a more in-depth exploration of a few cases. Given the above considerations, a medium sample size of 10-20 participants was decided upon (Braun & Clarke, 2013).

Procedure

The study was approved by the university’s Office of Research Ethics (ORE #42497). Interviews were approximately an hour in length and were audio-recorded and then transcribed. Participants met with the lead investigator individually through video-conferencing on Microsoft

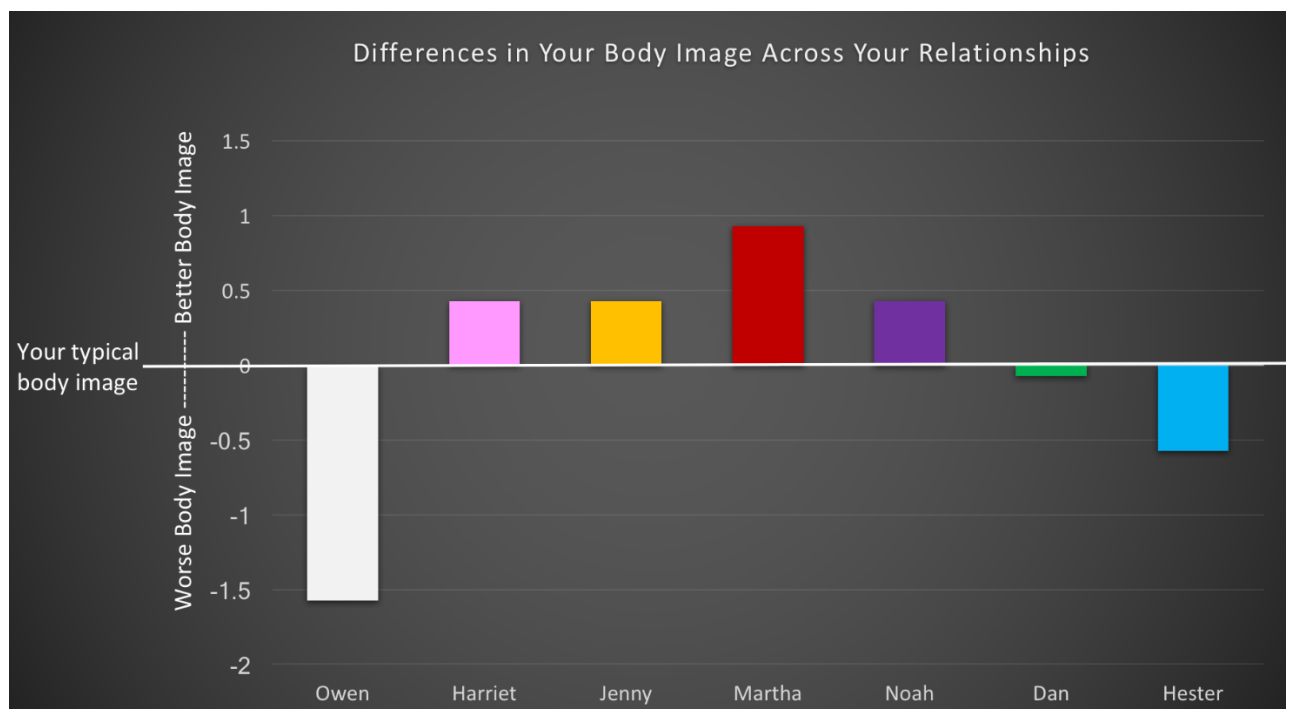
Teams. Mixed-method visual approaches were incorporated into the study design (Reavey & Johnson, 2011). In the first part of the study, we collected real-time self-report data from participants in order to produce a visual graph that depicted participants' personal relational body image. To collect this data, participants first answered a series of demographic questions and then completed a brief egocentric network survey with the investigator through Qualtrics using the Screen Share function. Egocentric network surveys are a commonly used methodology in the social sciences to conduct research on social networks, and have been used in past research on relational body image (Perry et al., 2018; Waring & Kelly, 2020; Waring et al., 2022). To start the network survey, participants were guided to list friends, family members, and other close people in their lives with whom they had some kind of personal relationship and with whom they had had fairly frequent contact with over the past six months, either face-to-face or virtually (McCarty et al., 2007; Roberts & Dunbar, 2015). After participants had listed the members of their social network, the investigator used a random number generator to select seven relationships which would be the focus of their participation (Marin & Hampton, 2007).⁶

The investigator continued the survey by asking specific questions about each of the seven selected people. Participants reflected on each relationship one at a time, and rated how they felt about their bodies when with that particular person by indicating their degree of body satisfaction (as adapted from the Body Image States Scale; Cash et al., 2002) and the degree to which they worried about how their body looks (as Adapted from The Body Image – Acceptance and Action Questionnaire; Sandoz et al., 2013). These two responses were then averaged (with the degree of worry reverse-scored) to produce seven relational body image scores for

⁶ Of note, one participant only listed 6 people for their total social network and thus the study was completed with 6 instead of 7 people.

participants' seven people. Participants were then given a five-minute break, and a personalized graph was generated to represent participants' relative relational body image across their seven relationships. The graph depicted the mean of participants' relational body image across their seven relationships at 0 to highlight the degree to which participants experienced their body image as above or below their personal average in their different relationships (see Figure 7).

Figure 7: *Sample Relational Body Image Graph*



In line with the use of visual approaches in qualitative studies (Reavey & Johnson, 2011; Temple & McVittie, 2005), the purpose of the graph was to stimulate discussion during the interview. Thus, after the five-minute break, the investigator used the Screen Share function to show each participant their personal graph, and their relative relational body image scores were reviewed (e.g., “You experienced your worst body image with your mom, Martha, and your best

body image with your friend, Owen”). The participants were given the chance to ask any questions and then the semi-structured interview began.

As is typical for qualitative interviews, an interview guide approach was used (Patton, 2002). As such, primary interview questions were pre-determined although flexibility was accorded depending on participants' answers. The interviewer began by open-endedly asking participants about their reactions to seeing their graph (e.g., “What is coming up for you as you look at the graph?”). Subsequent questions focused on participants' reactions to seeing their body image in specific relationships (e.g., “As you look at the specific relationships you listed, and as you look at your body image within them, what comes to mind?”) and then on the potential contributors to their body image in their different relationships (e.g., “What do you make of the fact that you tend to have better/worse body image with person X?”). The current paper only focuses on the first half of the interview guide questions (see Table 11), but the full interview guide is available via the Open Science Framework at <https://osf.io/a26sw/>.

At the end of the study, participants were given the chance to ask the investigator any questions they had, and a feedback letter was provided.

Table 11: *Interview Guide for Current Study*

Primary Questions	Follow-Up Questions
1. Now I'd like to know about your reactions to receiving this information about your body image in your different relationships. What is coming up for you as you look at the graph?	1. How much of this information do you feel like you were already aware of? 2. What, if anything, stands out to you about this information? 3. What makes that stand out for you? 4. What, if anything, surprises you about this information? 5. What makes it surprising for you? <u>or</u> What parts do you feel like you were already aware of?
2. Are there any particular emotions coming up for you as look at the graph?	1. Is there anything specific about the graph that seems to bring up that emotion for you?
3. What, if anything, do you notice about your body image as you look at the graph?	1. How do you usually think about your body image? 2. How does that compare to how you think about your body image as you look at the graph?
4. As you look at the specific relationships you listed, and as you look at your body image with them, what comes to mind?	1. What do you think makes your body image change/stay the same? 2. What do you make of the fact that you tend to have better/worse/similar body image with Person X?

Conceptual Underpinnings of the Research

For some qualitative approaches (e.g., interpretative phenomenological analysis, discourse analysis), specific philosophies are embedded into the method. However, for others, like thematic analysis, there is greater flexibility in the range of compatible philosophies (Braun & Clarke, 2022). As such, recent research has highlighted the importance of qualitative

researchers explicitly reflecting on and outlining the conceptual thinking that underpins their methodology (Braun & Clarke, 2021, 2022; Braun et al., 2022; Byrne, 2022). Thus, following Braun and Clarke's (2021, 2022) guidelines for conceptualizing thematic analysis (TA), we will specify and justify the type of TA we chose to use, and outline how we conceptualized our use of TA in the current study.

Reflexive TA was chosen as the primary methodological approach for two key reasons. Firstly, reflexive TA is epistemologically and methodologically consistent with much critical-feminist research (e.g., Braun & Clarke, 2021, 2022; Braun et al., 2022; Clarke & Braun, 2019; Jankowski et al., 2017; Wigginton & Lafrance, 2019). Namely, reflexive TA adheres to a non-positivist epistemology thus emphasizing "that a researcher is a positioned, subjective person who sees things from the influences that shape them as a person" (Jankowski et al., 2017, p. 7); this approach therefore invites researchers to engage with feminist principles of reflexivity (Clarke & Braun, 2019). The use of reflexive TA thus fit with our aim to incorporate feminist-informed methods into the current study.

Many feminist-informed qualitative methodologies exist, but another key reason we choose to use reflexive TA specifically is because it allows space for theoretical and methodological flexibility (Braun & Clarke, 2019). We wanted to have flexibility in what methods and theories we integrated into the current study, in part because methodological diversity is another important element of feminist qualitative research (Jankowski et al., 2017), and also because it allowed us to fulfill our objective to integrate two different ways of understanding into relational body image research (i.e., critical-feminist qualitative approaches and psychologically-informed quantitative research). Consequently, although reflexive TA was chosen as the primary analytical approach, other theories and methods were integrated into

different parts of the research process. For example, mixed-methods visual approaches were integrated into the procedure to create personalized graphs for each participant (see Procedure). In addition, the latter stages of analysis introduced elements from narrative methods and the first author's past theoretical knowledge also informed the analytical process (see Process of Analysis). In the end, then, we adopted a “hybrid” reflexive TA approach (Braun & Clarke, 2021, p. 31).

While the current study was informed by a range of different theories, we conceptualized our use of reflexive TA as being largely underpinned by a critical-realist framework. Critical-realism is informed by both phenomenological and constructionist theory, and thus aligns well with critical-feminist political goals to give voice to subjective experiences while still examining structures of power (Clarke & Braun, 2019; Jankowski et al., 2017). Critical-realist frameworks therefore acknowledge “participants’ experiences [as] real and true to them, yet inextricably as mediated and (socially) shaped at the intersections of cultural context and by different aspects such as age, ethnicity, class, gender, sexuality, and other individual experiences” (Pickens & Braun, 2018, p. 435).

Process of Analysis

The process of analysis followed the guidelines for reflexive TA and moved through the six stages of data familiarization, generating initial codes, generating themes, reviewing potential themes, defining and naming themes, and producing the report (Braun & Clarke, 2013). All interviews were conducted and analyzed by the first author. The second author offered edits and revisions on the defining and naming of themes and on the production of the report. See Appendix B for more detailed comments about each stage of analysis. To protect the privacy of participants and their seven relationships, pseudonyms were employed and identifying

information was removed from participant accounts. In addition, grammar in selected participant quotations was edited by the primary researcher for ease of understanding.

Participant interviews were analyzed using a predominately inductive approach. As such, all data were coded openly with no predetermined structure for how to code or interpret the data, and coding was guided by participants' meanings (Braun & Clarke, 2022). However, given that a goal of the current study was to integrate different theoretical perspectives into our conceptualization of relational body image, some deductive analysis was also used in that existing theories, concepts, and knowledge guided data coding and the identification of final themes. In particular, the first author drew broadly on past knowledge from psychological body image, social-cognitive theories of personality, critical-feminist body image work, and from her past research on relational body image. In line with a reflexive TA approach then, coding was informed by semantic meanings, which were guided by "surface" data content, and by latent meanings, which were guided by the first author's own theoretical and knowledge base. Throughout the analytical process, a pattern was observed in the style of responses. When asked about what contributed to their body image in specific relationships, almost all participants responded with comprehensive and often lengthy descriptions of their specific relationships. The presence and the content of these comprehensive descriptions seemed to be particularly meaningful to participants and relevant to our research questions. As such, we began to incorporate elements from narrative analysis when identifying themes. Narrative analysis relies on "extended accounts that are preserved and treated analytically as units, rather than fragmented into thematic categories as is customary in other forms of qualitative analysis" (Riessman, 2008, p. 23). The first author analyzed and generated themes across all participants as is typical in thematic analysis; however, she specifically focused in on participants' descriptions of their

specific relationships as the core “analytical unit,” as is typical practice for narrative analysis. In line with other examples of narrative thematic analysis (see Riessman, 2008), we selected exemplar cases to illustrate our key themes in order to keep participants’ lengthier descriptions of their specific relationships “intact.” As such, only one participant example per theme will be explored to keep the reporting of the analysis at a reasonable length (Riesmann, 2008). However, additional participant examples of each theme have been provided in Appendix C for interested readers.

Reflexivity in the Analytical Process

The authors’ own identities and positionality inevitably impacted the research process. Both authors identify as cis-gendered, white, heterosexual females in smaller bodies. Both were born in Canada, are middle class, and formally educated with the first author on the verge of completing her PhD and the second author having completed her PhD over ten years ago. This was the first author’s first time conducting a qualitatively-based analysis or working to integrate critical-feminist perspectives into her scholarly work and the second author’s first time being involved in in-depth qualitative methods as well. At a personal level, though, the first author has been a member of feminist-based groups and services and has an interest in critical psychological approaches. Both authors have experienced periods of “normative body image distress,” yet the intersecting privilege of their social identities have shaped their lived experience of this distress.

When conducting the interviews, the analysis, and writing of the manuscript, the first author found herself at times questioning the potential harm of her being the person to analyze (and thus interpret) the experiences of body-dissatisfied women with minoritized identities given her own positionality. At the same time, given that this was her first experience with qualitative methods, she was appreciative of the amount of autonomy and space offered to the participants

as compared to quantitative methods. She thus tried to use the current set of methods to incorporate participants' own 'voices' as much as possible into the research process. In addition, she was also aware of critical-feminist scholars who have pointed out that experiences of minoritized women in qualitative work tend not to be as critically interrogated as the experiences of more privileged women (Clarke & Braun, 2019; Jankowski et al., 2017). As such, although the process of analysis brought up discomfort in the first author at times, she tried to engage with the rich data the participants had provided with as much depth and critical reflection as she could. She also greatly appreciated having space in the methodology to reflect explicitly on her influence on the research process, including her own theoretical lenses, aims, identities, social positions, biases, and limitations.

As a final reflection, throughout the research process, the first author was struck by how conducting her first critical-feminist informed qualitative paper brought up notably more worry about colleagues' potential scrutiny, lack of familiarity, or disregard for the research than when she had conducted positivist-informed quantitative research in the past. These feelings made the first author reflect on how when certain forms of research are more normative, it can make engaging in research outside of those norms (especially for the first time and as a novice researcher) uniquely difficult and demanding.

Analysis

Participants

Of the 20 participants who were recruited for the study, one participant did not attend the interview and one participant could not secure a private space and so the interview was discontinued. In total then, 18 participants completed the study. In the final sample, more than half of the participants said that they were born in and raised in Canada ($N = 10, 55.6\%$),

identified as heterosexual ($N = 12$, 66.7%), and self-reported a BMI between 18.5 and 24.9 ($N = 14$, 77.8%). A majority of participants also identified as White ($N = 5$, 27.8%) and as non-religious ($N = 5$, 27.8%); however, there was also diversity across these demographic categories (see Table 12).

Table 12: *Frequency of Participants' Ethnicity, Sexual Orientation, Religious Identity, Birth Country, Time Living in Canada, and Body Mass Index (BMI)*

	Frequency	Percentage
Ethnicity		
White/Caucasian	5	27.8
Chinese	2	11.1
Hispanic	2	11.1
Indian	2	11.1
South Asian	2	11.1
Arab	1	5.5
Asian	1	5.6
Half (Asian White)	1	5.6
Korean	1	5.6
Middle Eastern	1	5.6
Sexual orientation		
Heterosexual/straight	12	66.7
Bisexual	4	22.2

Pansexual	1	5.6
Umbrella term queer	1	5.6
Religious identity		
No religion	5	27.8
Muslim	4	22.2
Agnostic	3	16.7
Christian	3	16.7
Atheist	1	5.6
Sikh	1	5.6
Declined to answer	1	5.6
Birth country and time in Canada		
Born and lived in Canada ^a	10	55.6
Born in Canada, lived 3 years in Canada	1	5.6
Born in Hong Kong, lived 7 years in Canada	1	5.6
Born in India, declined to answer time in Canada	1	5.6
Born in Pakistan, >10 years in Canada	1	5.6
Born in Saudi Arabia, >10 years in Canada	1	5.6
Born in Sri Lanka, >10 years in Canada	1	5.6
Born in Thailand, 5 years in Canada	1	5.6
Born in USA, >10 years in Canada	1	5.6

Body mass index (BMI)

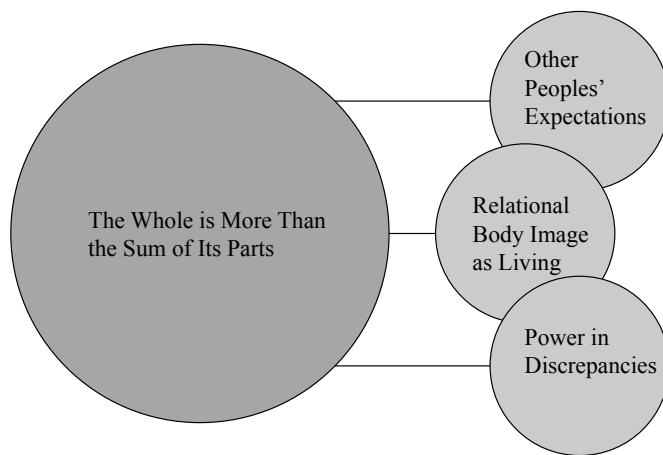
Below 18.5	1	5.6
18.5 – 24.9	14	77.8
25.0 – 29.9	2	11.1
30.0 and above	1	5.6

^aBorn and lived in Canada = “I have lived in Canada all my life and I was born in Canada.”

Analytical Structure

Reviewing participants’ accounts of their relational body image resulted in a final analytic structure with one overarching theme and three subthemes (see Figure 8). The overarching theme “The Whole is More Than the Sum of Its Parts” captures how the participants’ subjective experiences of relational body images were often linked to a unique configuration of contributing factors. Notably it was through identifying the configuration of contributing factors, rather than focusing on each contributing factor in isolation, that it seemed an individual’s experience of their relational body image could be best understood.

Figure 8: *Thematic Map*



Within this overarching theme, three subthemes described more distinct patterns. The first subtheme, “Other Peoples’ Expectations,” describes how the configuration of contributing factors came together to create an expectation for how one’s body would be viewed and treated in a specific relationship. These expectations then seemed to be closely related to how an individual experienced their body image within a given relationship. The second subtheme, “Relational Body Image as Living,” describes how the factors that contribute to relational body image are often in a process of change. Contributing factors were described as changing in both short- and long-term ways, and as factors changed, participants’ experiences of relational body image changed accordingly. Lastly, the subtheme “Power in Discrepancies” highlights how not all experiences of relational body images are equal and how certain people may stand out, and, as a result, be particularly influential on one’s relational body image.

The Whole is More Than the Sum of Its Parts

When asked what contributed to their relational body image, participants described a myriad of influences. Yet, among the many influences mentioned, common factors were identified. In particular, participants tended to reference their interpersonal histories with the other person, often focusing on key memories or experiences that came to influence how they feel about their body when they are with that person. Participants also often talked about the contribution of different sociocultural factors, including religion, ethnicity, body size, and sexual orientation of self and other. Lastly, psychological body image processes were often mentioned, such as engaging in upward comparisons or hearing fat talk. Interestingly, whether any specific factors resulted in more negative or positive relational body image was not straightforward in participants’ descriptions. Instead, it seemed that it was the unique configuration of these factors within the context of the specific relationship that determined whether these factors had a

negative or positive effect on the participant's relational body image rather than anything inherent about the factors themselves.

For example, when asked what contributes to the negative body image she experiences with her close friend, Anna started by saying,

“She’s like really, really thin and I’m not that thin. I’m athletic, I play a lot of sports, but I’m not the thin model kind of body type and she is. I think that definitely has an effect... I know that her being that thin isn’t due to just genetics or anything like that. It is unhealthy and she talks to me about it and we’re really open about it and I try to support her in that... but yeah, I think just being around her in general, like she can wear things where I’m like, ‘Oh, if I were to wear that it would look very bad on me.’ She can like pull things off or feel very comfortable wearing things that I could never (laughs). I think that probably gets to me a little bit.”

Anna began by talking about how psychological body image factors such as the thin-ideal and upward comparisons contributed to her negative relational body image with her friend, and her description is thus closely aligned to the integrated sociocultural model of body image (e.g., Frederick, Tylka, Rodgers, Pennesi, et al., 2022). However, Anna also hinted at an important interpersonal history, noting that she and her friend talk openly about her friends’ thinness. Anna elaborated to describe how these open conversations with her friend contributed to her body image,

“I think it definitely counters [my negative body image] because understanding that, yes her body looks a certain way, maybe I would rather my body looked that way, but ultimately it looks that way because of negative things. Because of bad body image and because of a lot of stuff that she went through in high school and so like understanding that there’s more than just her body looking this way. There’s a lot more behind it. I would say [knowing that] positively impacts like my negative body image ... When we first got to know each other, we didn’t have these conversations right away of course and it was like horrible seeing her (laughs). I’d see her and I would go ‘oh my God, I wish that like I could wear crops tops like that... and it looks so nice because she’s so thin and I am not that thin’ and that kind of thing. But then once we started talking about how that’s actually an issue for her, it was like ahh, okay...”

Contributing factors like the thin ideal and upward comparisons take on a unique meaning once the interpersonal history of Anna and her friend is understood. For Anna, learning about the reasons behind her friend's thin body, including the difficulties her friend has experienced, was another important contributor to her relational body image. Knowing this information about her friend changed Anna's perspective on her friend's thin body and made her feel less negatively about her own body when with her friend.

Lastly, Anna ended by saying:

“We're really close, we're both queer, which I think is a big part of our friendship because I never had a lot of friends in the LGBT community and I think because we both got to open up about really vulnerable topics because of that connection that it just leads us to like open up a lot more about all vulnerable topics (laughs).”

Anna finished her description of her relational body image with her friend by highlighting how having a common ground in their minoritized identities is part of what allowed her to learn more about her friend's difficulties. Taken together, Anna's description of her relational body image highlights the complex configuration of factors that contributed to how Anna felt about her body with her friend. Without hearing the whole of Anna's explanation for her relational body image with her friend, much could be missed and oversimplified. If Anna and her friend were not both queer, and if she had not learned about her friend's struggles over the course of their relationship, we can imagine that the upward comparisons she had engaged in with her friend would have had a different and likely more harmful influence on her relational body image. Each factor that contributed to Anna's relational body image with her friend is thus interconnected and dependent on the other in unique ways. Understanding the whole configuration of Anna's relational body image experience thus provides a much fuller picture than trying to understand any one factor in isolation.

Other Peoples' Expectations

Often when talking about what contributed to their relational body image, participants seemed to be outlining the other person's expectations for their body or what they believed the person thought of their body. These expectations were then closely related to the valence of participants' relational body image. In line with the acceptance model (e.g., Avalos & Tylka, 2006), expecting greater body acceptance from the other person generally promoted more positive relational body image whereas expecting more body judgment from the other person tended to result in more negative relational body image. However, participants' accounts also highlighted how other peoples' expectations influenced relational body image in a more complex way than a pure 1-1 relationship between expecting acceptance or judgement and experiencing positive or negative relational body image. Once again, it was the unique configuration of factors within specific relationships that seemed to determine how other peoples' expectations influence body image. For example, when asked about her relational body image with her grandmother, Sarah stated,

“[She's] religious. I've never dressed in tight clothes or revealing clothes when I'm around her. I think that because I'm never seen in tight clothes or revealing clothes there's no need for her to ever comment on [my body] ...so I think that just makes it not happen as much. She is definitely more traditional for a grandmother so another aspect that I guess I could bring into it is that even though I dress modestly around her, I don't always want to. I wanna be able to wear shorts and a tank top in the summer when it's hot but I'm not allowed to so that might also play into it a little bit. Even though the modesty makes me feel more positive about my body, when I do wanna show my body off I can't. I know that if [I were to reveal my body] in front of her that I would be made to feel bad about it by my grandma.”

Sarah thus described how she has learned to expect body acceptance, or perhaps more accurately body neutrality, from her grandmother when she dresses modestly. This expectation developed based on her knowledge of her grandmother's traditional religious values, and the lack of

appearance-focused comments made by her grandmother. Yet Sarah's interpersonal history with her grandmother also taught her that experiencing body neutrality from her grandmother was conditional. That is, while her grandmother's neutrality towards her body generally made Sarah feel more positive relational body image, Sarah was aware that her grandmother's neutrality would change if she were to dress differently. Given that Sarah expected conditional body acceptance from her grandmother, she also felt restricted in important ways with her. As a result, she reported experiencing some negative relational body image with her grandmother as well.

In contrast, Sarah talked about having more consistent positive body image with her friend. She described:

"I met her at the beginning of university. I remember in the first part of our relationship [we] never talked about body image, never talked about anything having to do with like sex or relationships or anything like that because she is very religious. Because of that, [body image] just never came up in conversation. I wasn't aware of it...but like looking back we never talked about that stuff. But now that we do have a closer relationship... [body image still] doesn't really ever come up so I never feel self-conscious... But I can also talk about when I feel self-conscious about relationships, or like wearing bathing suits, or just wearing more revealing clothing. She doesn't, like, wear revealing clothing and has never been in a relationship or anything like that so when I talk to her about these things I don't feel like I'm comparing with her. She's not judgey at all (laughs)."

Here Sarah outlined a similar pattern as she did with her grandmother, in that her friend's religiosity resulted in a low preoccupation with body image, which contributed to Sarah experiencing more positive relational body image with her friend. However, she had a different interpersonal history with her friend than with her grandmother. Sarah described how over time she learned that she could expect body acceptance, and acceptance more generally, from her friend even if she brought up vulnerable body image related topics. Thus, the factors that contributed to her relational body image with her friend were configured in a different way than with her grandmother, and so a different expectation formed with her friend. Sarah expected

more unconditional body acceptance from her friend and so, overall, she described experiencing more positive relational body image when with her friend than when with her grandmother.

Relational Body Image as Living

Apparent throughout the participants' accounts was the idea that relational body image is dynamic, or "alive," within relationships. That is, the factors that contribute to relational body image were often described as changing over time and across contexts, meaning that one's relational body image also fluctuated within a given relationship as contributing factors changed. Participants largely talked about two types of change, which we will term developmental or contextual changes. Developmental changes described more permanent, or trait-like changes, in contributing factors that occurred with the passage of time whereas contextually-based changes described more temporary or "state" changes that occurred with changing situations. However, the distinction between developmental and contextually-based changes was sometimes fuzzy in participant accounts. At times, participants described experiencing a change in context for such a long time that it began to result in some developmental changes to contributing factors. Layla's more negative relational body image with her boyfriend demonstrated the living nature of relational body image. She started by saying,

"It's really tough, it mostly has to do with where we're from, our religion and our culture... If we're looking at the cultural impact like with [my boyfriend], he hates it when I wear shorts, he doesn't like it when I wear dresses cause he's a little bit conservative like that, right."

Layla described how the presence of certain contextual cues can trigger a ripple of changes in her relational body image. In particular, if Layla was wearing certain types of clothing, her relational body image with her boyfriend then felt more influenced by her boyfriend's religious and cultural values. If her partner's religious and cultural values had a larger influence, then she

described expecting more body judgment from her partner, and thus ultimately, she experienced more negative relational body image in those moments. Layla went on to further explain the complicated nature of this process by describing how her partner's religious and cultural values were not always amplified by the same contextual cues. She noted,

“But then he has his own website and when you see his website it's like, okay, well your website says something else. You're showing dresses of girls that are showing a lot of cleavage, so that makes me think, okay, you want me to be a certain way, but yet I see that you also want another thing too ... I'm really cautious of [showing my body] so I can't be like those girls that you have on your website, I don't have that type of body. So that really brings me down even more... like a lot of mixed messaging (laughs)”

Layla outlined how the same types of clothing on other women did not seem to result in greater body judgement from her boyfriend and she notes how difficult it can be when so many different and changing factors contribute to how she expects her boyfriend to feel about her body. The importance of delineating the specific relational context in which contextually-based changes occur are thus highlighted in Layla's response. In the context of their specific relationship, her partner responded in a unique way to her wearing certain types of clothing, but this response was not necessarily the same when other women wore similar types of clothing. Layla ended her description by also outlining the importance of the broader social context as well,

“I mean, culture does play a role, I mean if we were to go back to the Middle East and be around our friends we would be dressing and acting a certain way but because we're in North America, we're a lot more open. So if he was back home he would definitely be a lot more strict with me, but because he's here, he's seeing that there's a lot more opportunity for freedom. So it's honestly both, it's a mixture of both and that's what makes it really, really difficult.”

Layla described how her partner's religious and cultural values about women's bodies have undergone some “new” trait-like or developmental changes as a result of the long-term contextual change of moving to a new country. However, she also noted that her boyfriend's “older” religious and cultural values about women's bodies still arise in certain situations based

on a complex mixture of contextual factors including what country he is in, who he is with, and what the other person is wearing. The distinction between trait versus state or developmental versus contextually-based changes thus becomes blurry. However, Layla's account clearly demonstrated how the factors that contribute to relational body image are "alive" and thus there is always the potential for change in one's experience of relational body image.

Power in Discrepancies

While participant accounts showed how relational body image can change within each specific relationship, some participants also outlined how they have "stand out" relationships that consistently have a stronger influence on their relational body image. For example, Dani stated that her relational body image was most strongly impacted when she was with her sister. She explained,

"We've always been super close, and with [my sister] body image issues have come up in conversation and we have talked through that. That just helps me feel like a lot more comfortable around her talking about my own body image issues, and she's never said anything negative about how I'm feeling. She's always just been so supportive and very kind about any possible feelings that I felt...She's definitely talked about her own [body image] feelings in those conversations, and I feel kind of bad about them cause she's always struggled with body issues. If anything, seeing her be so vulnerable and open, I think it just like strengthens our relationship."

Dani talked about how an expectation of body acceptance had developed with her sister and she described how she learned that she can go to her sister and receive support when she is feeling negatively about her body. Dani noted that she understands her sister's supportiveness as stemming in part from her sister's own struggles with body image,

"It makes me look up to her more because she still deals with those feelings. She also goes to [X university] and she's doing [X major] so a lot of her [work] reflects her feelings and her issues with body image. I think it's really cool how she can explore that, those emotions and talk about that, but I think that's taken her a lot of years of reflecting upon her own issues to do so. When I look at her, like, I just feel very proud about how she's so candid and how she is so able to talk about those issues because it can be a bit

hard in a society where people look at bigger bodies as a negative thing. So yeah, I feel proud when I look at her and talk to her about those things... But I feel like it can be hard sometimes because, back to how society treats people who are bigger, there's just such a negative thing around [larger bodies] so when I see her deal with that stuff it can be a bit tough because I wish I could like help her, and my mom isn't exactly the kindest."

Dani's description highlighted again how a unique configuration of elements contributed to her relational body image with her sister. In particular though, Dani pointed to how her sister's resilience in working to accept her own body in an unaccepting society made her sister, and accordingly her relational body image with her sister, stand out. When Dani talked more about her other relationships though, it became clear that her relational body image with her sister not only stood out in comparison to her other relationships but also affected them. For instance, Dani talked about how she experiences more negative relational body image with a close friend stating,

"She's really negative about her own body and I would say that we're around the same size. When she talks negatively about her own body I just feel a bit frustrated and upset with her because, like, it's pretty constant, and I wish she wasn't so negative about herself."

In stark contrast to her sister, Dani's friend talked very negatively about her own body. However, Dani expanded on how she has come to understand her friend's fat talk based on their interpersonal history, and on her history with her sister. She explained,

"I think about this one specific time when I was around her and her mom. Her mom is a pretty slim person so I feel like her mom talks pretty negatively about body image too. I remember her [mom] coming across this picture of a mutual friend they had, and she said 'wow she's so skinny,' and she said it in such a positive way. I just remember being around that and hearing [my friend]'s response, she kind of deflected with humor but I could tell that she was a little bit hurt and that made me uncomfortable. I feel like some of her opinions about herself kind of stem from that, and I feel bad because I don't feel like there's anything really wrong with her body but she's always like, 'I shouldn't be eating this,' or 'I need to be working out more.'... I don't know, it just makes me feel bad for her. She's an only child so she doesn't have a support to talk to... if my mom makes some comments here or there, if that ever happens, I can go to my sister and just talk with her about what I'm feeling, and it's a really good way to talk through emotions and

feelings, but for her, like, she's by herself...so she goes through things alone, so it makes me feel worse."

We can see how Dani's relational body image with her sister started to influence her relational body image with her friend. Dani recognized how her sister has acted as a supportive role model and helped her challenge societal expectations for how bodies should look. In contrast, Dani learned that her friend not only lacked such support, but also had relationships that reinforced harmful societal expectations. Recognizing the discrepancy between her relationship with her sister and her friend's relationship with her mother helped Dani develop empathy for her friend's negative body image despite her frustration. Dani's account thus demonstrates not only how certain relationships can be particularly influential on one's own body image, but also how such standout experiences may even influence one's body image in other relationships as well.

Discussion

The aim of the current study was to explore and better understand body-dissatisfied college women's personal experiences of relational body image. By integrating critical-feminist methods and theory, our study allowed for several new ways of understanding relational body image. Firstly, the overarching theme, "The Whole is More Than the Sum of Its Parts," pointed to how relational body image can be conceptualized as being made up of, and thus influenced by, a unique configuration of interconnected factors. This is a novel way of thinking about relational body image given that previous quantitative work has focused on the isolated effects of specific contributing factors (Waring & Kelly, 2020).

From this overarching theme, three subthemes delineated different aspects of relational body image that may be helpful to conceptualize from this new perspective. The subtheme "Other Peoples' Expectations" highlighted how a configuration of contributing factors come

together to form an expectation for how the other person will view one's body. Whether the other person was perceived as accepting or judging of one's body seemed closely related to whether more positive or negative relational body image was experienced. However, participants' accounts also highlighted how these expectations of others were derived from a number of different but interrelated contributing factors, and thus should not be over simplified. The second subtheme, "Relational Body Image as Living," emphasized how relational body image is often in flux as a result of long-term developmental changes and short-term contextual changes to contributing factors. Participant accounts thus demonstrated that rather than describing relational body image as either positive or negative with another person, it may be more accurate to detail how an individual experiences relational body image in one way under one specific set of circumstances and in another way under other circumstances. The last subtheme, "Power in Discrepancies," suggested that not every factor within a configuration has equal influence meaning that an individual's relational body image may be more strongly impacted by certain people. Participant examples also highlighted how the strong influence of certain "stand out" people at times also influenced how they experienced their body image with other people as well. Hence, it may be important to consider not only the interconnection between contributing factors within a specific relationship, but also how experiences of relational body image may be interconnected in unique ways across relationships.

Overall, the current study supported past quantitative research that has shown that body image can change across specific relationships based on the characteristics of the other person (Waring & Kelly, 2020; Waring et al., 2022). However, the results of the present study added more complexity and nuance to this conceptualization of relational body image by highlighting the importance of seeing relational body image, and the factors that contribute to it, as

interconnected, dynamic, and differentially powerful. In addition, the current study is a unique contribution to the literature on relational body image as it was the first to explore relational body image among a sample of body-dissatisfied women. Results indirectly supported the relevance of relational body image for this population (Waring et al., 2022). Namely, all participants in the study reported variability in their body image across their relationships and were able to reflect on what factors contributed to these changes. Thus, even though all participants reported mild-moderate body dissatisfaction at a trait level (Welch et al., 2012), this did not mean that they experienced stable levels of body dissatisfaction across their different relationships.

The Influence of Critical-Feminist Perspectives

The results of the current study enriched conceptualizations of relational body image in part because of the integration of new methodology and theory. In particular, critical-feminist qualitative methods were used to design and analyze results, and critical-realist theory underpinned the overall structure of the study. As a result, critical-feminist perspectives had a unique influence on the results and implications of the current study.

Relational Body Image as Personally Meaningful

The idiographic qualitative methods we used made apparent the high degree of complexity that exists within each person's unique experiences of relational body image. Although familiar body image and interpersonal cognition concepts were present across participants' accounts, our qualitative approach underscored how these general concepts took on a different meaning for each person based on differing socio-historical factors (Budgeon, 2021; Riley, 2018; Riley et al., 2023; Thompson et al., 2018). For example, the reasons *why* a participant experienced body acceptance from people in their life were varied and dynamic.

Learning that a large amount of complexity exists within each participant's relational body image is important for several reasons. At a broad level, it adds indirect evidence to the hypothesis that it is valuable to consider body image as relationally-based. Although each participant had unique experiences of relational body image, asking open-ended questions about their body image across their specific relationships consistently elicited a wealth of relevant information. As such, it seemed that participants generally perceived their specific relationships as being important for their body image. However, more than just underscoring the broad relevance of specific relationships, the current results are the first to suggest that the personal meanings individuals attribute to their relationships are likely an important contributor to body image. Across participants, it was the idiographic ways participants made sense of their specific relationships that were most directly tied to their experiences of relational body image.

Assuming that the personal meanings of relationships can influence body image has implications for intervention. As past studies on relational body image have noted, relationally-focused body image treatments may be an important avenue to consider (Waring & Kelly, 2020, Waring et al., 2022). However, the current results suggest that personalized interventions may be more helpful than manualized interventions, which tend to target more generalized outcomes, such as reducing appearance comparisons (e.g., Myers & Crowther, 2009; Waller et al., 2019). For example, in the current study, a participant's engagement in upward comparisons had different meanings with different people; there was an idiographic, relationship-specific context behind the behavior. While Dani described engaging in upward comparisons with a friend, it was also important to know that Dani felt quite guilty about this behavior because she knew that her friend lacked the positive body image role models that she herself had benefited from. Understanding the personal meaning of the behavior for Dani suggests that perhaps encouraging

Dani to act as a positive body image role model for her friend, rather than trying to reduce her upwards comparison, may be a more personally meaningful and thus effective target for her.

Relational Body Image and Power

As is typical in critical-feminist research (e.g., Clarke & Braun, 2019; Jankowski et al., 2017), the present study highlighted not only the role of personal experiences in contributing to relational body image but also the influence of broader social structures. However, given the critical-realist approach of the current study, our focus on systemic factors was interconnected with participants' own experiences; it was noteworthy the degree to which participants spontaneously discussed the influence of their sociocultural milieu when asked about their relational body image. Although psychological body image research has long emphasized sociocultural influences on body image (see Tiggemann, 2011 for a review), in the current study, a more heterogeneous, dynamic, and idiographic understanding of sociocultural influences was brought to light. For example, rather than only focusing on perceived pressures to be thin, participants talked about a much broader array of sociocultural circumstances including their experience of immigration, of being queer, and of fatphobia. Similarly, rather than only viewing sociocultural influences as a source of particular beliefs (e.g., a thin-ideal), the critical-realist lens of the current study allowed us to explore how sociocultural experiences produce power dynamics that can influence body image (e.g., Pickens & Braun, 2018). For example, having a larger body (Freidman et al., 2019), being from a different country (Castañeda, 2017), and being queer (Bridges et al., 2023) all have an impact on how individuals experience power and influence in their daily lives. The results of the current study further suggested that these power dynamics influenced participants' relational body image.

In particular, the current study called attention to how the power dynamics of social positions and structures can influence the power of specific relationships. For example, Anna reported experiencing more negative relational body image with one of her friends; however, she noted that she and her friend were both from the LGBTQ community, which acted as a protective factor for her relational body image. Anna explained that being from the LGBTQ community allowed her and her friend to be vulnerable with each other, which ultimately improved Anna's relational body image with her friend. The shared experience of being part of a minoritized group thus had a powerful influence on Anna's relational body image with her friend. In a similar way, the most influential relationship on Dani's body image was with her older sister. Dani described how her older sister was in a larger body and was a vocal critic of fatphobia, which was inspiring to Dani and thus made her relationship with her sister particularly influential. These accounts thus spotlighted how particular contributing factors, and in turn particular relationships, can have a stronger influence on one's relational body image. Results also provided some preliminary evidence to suggest that, at least in some cases, individuals who hold minoritized identities at a systemic level can sometimes have a particularly strong influence on other people's relational body image. In particular, if a person experiences their own social position as being outside of dominant social norms and/or if they would like to resist dominant norms, then having a relationship with someone else with a similarly non-dominant social position and/or who resists dominant norms may be particularly influential.

Conceptualizing and researching sociocultural factors as embedded within relationships could help interventions more directly target and harness the power of specific relationships to improve experiences of body image at a relational and systemic level. For example, for Dani, it may be most effective to focus intervention on her relationship with her sister (e.g., spending

more time with her, thinking about her influence) given that this relationship is particularly important to her. Although not explored in the current study, it is possible that helping Dani's sister become aware of the noteworthy positive influence she has had on Dani's body image could also have beneficial effects. For instance, knowing that Dani looks up to the way she resists fatphobic norms may provide a source of motivation for Dani's sister to keep resisting such norms, which could further benefit Dani, her sister, and others in her sister's life. The current results thus highlight the potential value of seeing reciprocal connections between relationships and power rather than seeing relationships as only a channel for sociocultural norms.

Broader Conceptualizations of Body Image

Lastly, the current results underscore the value of broader conceptualizations of body image more generally. Various contemporary constructs in body image, such as embodiment (e.g., Piran, 2018) and body functionality (e.g., Alleva et al., 2015; Rice et al., 2021), also go beyond appearance concerns and satisfaction as defining characteristics and do not see body image as being encapsulated within the individual. Perhaps unsurprisingly, these constructs have also been informed by critical-feminist perspectives. Study results thus add another voice to the growing chorus of work that encourages more expansive understandings in psychological body image research, and which espouse the integration of critical-feminist frameworks as one way to access these broader perspectives (e.g., Blood, 2005; Bordo, 2009; McBride, 2018, McKinley, 2004; Orbach, 1978-2006; Piran, 2018; Rice et al., 2021; Riley et al., 2023, Tylka & Piran, 2019).

Limitations and Future Directions

The current study was the first to explore relational body image using critical-feminist methods and theories and thus it has several noteworthy limitations. Importantly, the study relied on a convenience sample of body-dissatisfied cis-gendered college women, which significantly narrowed the sample characteristics. Nevertheless, it is noteworthy that even with a narrow sample, results demonstrated rich and varied experiences of relational body image. However, the current results also highlight the importance of understanding subjective experiences. Future studies should explore subjective experiences of relational body image in broader and more diverse samples. While the current sample included some diversity in race and ethnicity, it was less representative of other social positions including age, sexual orientation, and gender identity.

In a similar vein, the current study only investigated subjective experiences of relational body image among women with mild-moderate trait body dissatisfaction. While results suggest that relational body image is relevant for this population, future work is needed to investigate if and how differing levels of trait body dissatisfaction influence relational body image. Past work has hypothesized that perhaps a non-linear relationship exists between body dissatisfaction and relational body image (Waring et al., 2022). Women with moderate body dissatisfaction may experience more variable body image across different relationships whereas women with more severe body dissatisfaction may experience more stable (negative) body image across relationships. As the current study only examined the experiences of women with mild-moderate trait body dissatisfaction, future work directly comparing experiences of relational body image among individuals with low, moderate, and severe levels of body dissatisfaction will be needed to further elucidate these relationships.

The types of relationships that participants were prompted to explore were also narrowed in specific ways. The current study focused on close relationships because these have been shown to be particularly impactful for the development of self-attitudes (Andersen & Chen, 2002). However, the intentional focus on close relationships in the current study was unintentionally heightened given that it occurred during the COVID-19 pandemic in a period of lockdown. Although participants were able to report on relationships with people whom they were not seeing in person, many people's close relationships were intensified in unique ways during the height of the global pandemic (e.g., spending inordinate amounts of time with some people and spending less than typical amounts of time with others). This may have artificially inflated or deflated the influence of specific relationships on participants' body image as well as reduced the overall number of close relationships participants reported. Future research on subjective experiences of relational body image outside of a pandemic lockdown are thus warranted to determine how and if the current results are particularly unique.

In addition, the current study was quite specific in the stimulus used to elicit self-reports of relational body image. Although the interview itself was semi-structured and guided by participant responses, to introduce participants to the idea of relational body image, all participants were shown a personalized graph of their relative relational body images across seven specific relationships. Depicting relational body image in this way thus indirectly provided a structure to how participants' might have understood and reflected on their relational body image, for example, by prompting participants to think about their relational body image as being better or worse than typical across their relationships. As such, future research may benefit from trying to study body image more naturalistically. To date, all studies on relational body image have provided some sort of framework for the concept of relational body image prior to asking

participants about their experiences of it. It would be interesting to see if participants naturally see connections between their experiences of body image and their specific relationships without providing such a framework beforehand.

Lastly, although novel methods were used to research relational body image in the current study, methods still focused on the perception of one individual in the relationship. That is, relational body image research has focused only on how one individual perceives their relationships as influencing their own body image but has yet to capture the perceptions of the other person in the relationship. Methods such as sociocentric network methods (e.g., Fletcher et al., 2011; Paxton et al., 1999) or dyadic analysis (e.g., Laboe et al., 2022; Saita et al., 2022) could be important in future research to investigate potential mutual influences of relational body image that occur across dyads or across a larger network of close relationships.

Conclusions

The current study was the first to integrate critical-feminist methods and theory into research on relational body image. A qualitative focus on body-dissatisfied women's subjective experiences of relational body image built on past research by continuing to highlight the relevance and value of a relational conceptualization of body image. Importantly, the results of the current study added unique breadth and depth to the conceptualization of relational body image by spotlighting the importance of idiographic experiences and the broader sociocultural system. Given the growing research base for relational body image, future work may benefit from beginning to more directly investigate how and if the concept of relational body image can be used to intervene with and improve negative experiences of body image.

General Discussion

The current program of research provided evidence for a relational conceptualization of body image. While relational body image is a novel concept, our conceptualization was theoretically born through an integration of various bodies of research. Three studies then empirically evaluated the concept of relational body image using a mix of quantitative and qualitative methods. The results of these studies have noteworthy practical, methodological, and theoretical implications.

Broadly speaking, the first-order objectives for the program of research all aimed to provide evidence for the validity and value of a relational conceptualization of body image. Study 1 focused primarily on providing preliminary evidence for our initial conceptualization of relational body image (Waring & Kelly, 2020). It investigated 1) whether a given individual's body image varied across their different close relationships, and 2) whether the other person's characteristics reliably predicted such changes in body image across relationships. To evaluate these hypotheses, past trait body image measures were adapted into relationship-specific measures by incorporating egocentric network methods (Perry et al., 2018). Then, in lab, 87 undergraduate women were asked to report on their levels of body appreciation, appearance orientation, and intuitive eating with 10 close people in their lives, and to report on the specific characteristics these 10 people possessed. Relationship-specific variations in body image were then examined within a given person across their 10 relationships. Intraclass correlations demonstrated that participants reported considerable variability in their body image across their 10 relationships and perceived substantial differences in the characteristics that their 10 people possessed. Of note, multilevel modeling revealed that other people's characteristics were also predictive of changes in relational body image. Participants reported more adaptive body image

and eating patterns in relationships with others whom they perceived to be relatively more accepting of their body, less body preoccupied, and more similar in size to them. Study 1 thus provided initial evidence for our conceptualization of relational body image.

Study 2 then aimed to build upon these initial results by examining whether there were individual differences in relational body image, and specifically, whether individuals who experienced greater fluctuations in their body image across their important relationships also reported more maladaptive trait body image (Waring et al., 2022). To test this hypothesis, 189 undergraduate women completed trait measures of body image online. Then, in-lab, participants completed relationship-specific measures of body image with 10 important people in their lives. A multiverse analysis of linear regressions indicated that individuals who reported more overall fluctuations in their body image across their relationships were at greater risk for maladaptive trait body image. Study 2 thus further developed our conceptualization of relational body image and suggested that differences in relational body image exist not only within a person across their important relationships, but also between individuals, with some people experiencing more changes to their body image across relationships than others.

Our final study then explored women's subjective experiences of relational body image through integrating critical-feminist theory and methods (Waring & Kelly, 2023). Given the results of Study 2, I decided to focus on the subjective experiences of body-dissatisfied women. I used videoconferencing to conduct one-hour semi-structured interviews with 18 undergraduate women and explored their personal experiences with relational body image. Reflexive thematic analysis, informed by a critical-realist framework, was then used to identify themes across participant interviews. Results highlighted the value of conceptualizing relational body image as a configuration of interconnected factors within a relationship through the overarching theme,

“The Whole is More than the Sum of Its Parts.” Three subthemes were also identified: “Other People’s Expectations”, “Relational Body Image as Living”, and “Power in Discrepancies.”

These three subthemes indicated that the interconnected factors that contribute to relational body image: help form a general expectation for how the other person will view one’s body; are constantly in-flux; and are differentially powerful. Through the incorporation of women’s subjective experiences, Study 3 thus further validated and enriched our conceptualization of relational body image.

Coming to An Understanding of Relational Body Image

Before discussing the implications of our three empirical studies, I will first comment on the overall research process. I will provide these comments because I believe that explicit reflection on the research process is valuable (Jamieson et al., 2023), and because there have been recent recommendations to improve research practices in body image via deliberate thought about the research process (Atkinson et al., 2020). As well, a second-order objective of my program of research was to use the construct of relational body image to integrate disparate bodies of knowledge both within and beyond body image (Atkinson et al., 2020). This higher-order objective influenced the research process in unique ways that are worthy of discussion.

Conducting an Expansive Literature Review

One aspect of the research process that was valuable in helping to achieve research objectives was conducting an expansive literature review. While this certainly made the research process “slower” (Atkinson et al., 2020; Hartman & Darab, 2012), an expansive literature review felt like a necessary step to develop a conceptualization of relational body image that consolidated literature from across the body image field. In addition, a broad literature review helped us build a strong initial conceptualization of relational body image prior to evaluating it

empirically. I will thus briefly review the elements of this aspect of the research process that I believe could be beneficial for future research.

Firstly, as is typical with most literature reviews, I reviewed relevant findings about social relationships and body image across the contemporary psychological body image research. However, rather than continuously narrowing our focus within these contemporary findings, I then chose to review relational conceptualizations in historical body image research. A historical literature review had many benefits. For example, the review allowed me to identify that initial conceptualizations of body image had actually been quite relationally-based (Schilder, 1935/1950). From there, the review helped me trace how subsequent research had moved away from these relational conceptualizations (Shontz, 1969) and how, eventually, more contemporary body image research had started to move back towards seeing body image as contextualized and interconnected (Fuller-Tyszkiewicz, 2019; Tiggemann, 2011, 2019). As a result of this historical review, I was then able to identify new areas of research that may be useful to consider as part of our review. For instance, from learning that the earlier relationally-based conceptualizations of body image were informed by psychoanalytic theory (Schilder, 1935/1950), I guessed that contemporary psychodynamic research on relationships may be useful to review. Similarly, the review helped me observe how the decline of psychoanalytic-informed research in body image (Shontz, 1969) was followed by a rise in critical-feminist approaches to body image (Orbach, 1978/1988/2006). Noticing these complementary changes in the body image research landscape thus also suggested to me that critical-feminist research on body image may be theoretically relevant and thus also useful to review.

Therefore, following a historical review of the body image literature, the next valuable element of the literature review was reviewing cross-disciplinary research and/or research

outside of the psychological body image field. While my initial ideas for which cross-disciplinary research to review came directly from the historical review, as I began to explore cross-disciplinary research, I continued to identify other new areas of research to review in an iterative fashion. A major benefit of reviewing research outside of the psychological body image canon is that I came across new perspectives on relationships and body image. These alternative perspectives helped me to pinpoint important blind spots in contemporary psychological body image research on social relationships. In addition, through reviewing psychodynamic and critical-feminist research, I came across many relevant and “new-to-me” theories and methods that could be borrowed and adapted to use in the current program of research. Altogether, then, my expansive literature review helped to ensure that the conceptualization of relational body image was informed by a depth of understanding, through a historical review of the psychological research on body image, and by a breadth of understanding, through reviewing complementary cross-disciplinary research.

Finding an Overarching Theoretical Framework

Another important aspect of the research process was the identification of an overarching theoretical framework to guide investigations (Atkinson, 2020). While an expansive literature review provided a wealth of new methods and theories to consider, I needed an overarching theoretical framework to provide a higher-order structure and vision for the program of research (Grant & Osanloo, 2014). Ultimately, I needed an overarching theoretical framework to help me decide what methods and theories to integrate from the literature review, to guide the sequencing of the three studies, and to inform the methodological plans of the studies. I will review below the process I followed to find such an overarching framework with the hope that it may be helpful to future researchers as well.

In general, I wanted to find a theoretical framework that could provide a blueprint for how to start to integrate different areas of the body image literature through a relational conceptualization. The literature review had helped me identify two gaps in the body image literature that I thought were well-suited for integration: 1) state and trait approaches; and 2) psychological and critical-feminist approaches. I thus looked to other disciplines for relevant theoretical frameworks, which had been effective at helping to bridge similar research gaps.

Personality science was an obvious field to consider given the parallel research on trait and state personality and the interactionist focus of current personality research (Furr & Funder, 2021). Through exploring contemporary personality research that combined state and trait approaches, I found a number of potentially relevant theories (Fleeson & Jayawickreme, 2021; Hopwood et al., 2019; Mischel & Shoda, 1995), which were all broadly based on a social-cognitive personality framework (Jayawickreme et al., 2021). A deeper look at the social-cognitive personality research then allowed me to discover the growing sub-area of interpersonal cognition, which combined state and trait personality approaches, specifically within interpersonal contexts (Baldwin, 2006). Given the clear similarities to my own research aims, I ultimately chose to broadly use social-cognitive theories of personality as an overarching theoretical framework to guide my efforts to bridge state and trait approaches in body image through a relational conceptualization.

As the research progressed, I also began to consider whether social-cognitive theories of personality could also provide a blueprint for how to bridge critical-feminist and psychological body image approaches. Through further review of the social-cognitive literature, I came across the three-layer view of personality (McAdams, 2015), which includes social-cognitive approaches to trait and state personality but also adds a “third layer” of personality termed

narrative identity. Narrative identity research is largely derived from qualitative studies, and thus is epistemologically distinct from social-cognitive approaches (McAdams, 2021). While narrative identity research had previously been considered an “alternative” approach to personality, the three-layer view of personality brings the complementary perspectives of narrative identity and social-cognitive research together (McAdams, 2015; Pasupathi & Adler, 2021). Importantly, I discovered that interpersonal cognition research has also started to incorporate the three-layer view of personality, suggesting that it may be a valuable perspective to consider within interpersonal contexts as well (Dunlop et al., 2022). Given the overlap between the three-layer view of personality and my own research aims, in the third study specifically, I used this theoretical framework as a roadmap for how I might begin to integrate critical-feminist and contemporary psychological body image research through a relational conceptualization.

In sum, social-cognitive approaches to personality were broadly used as an overarching theoretical framework throughout my program of research. Although the gaps in the literature that the three studies attempted to bridge all existed within the body image research, I benefited greatly from consulting an empirically-validated theoretical framework from personality science that had helped to bridge similar research gaps. As I detailed above, the ways in which I used the social-cognitive framework to guide the program of research evolved in an iterative way. Depending on the aims of each study, I either focused in on specific aspects of the framework (e.g., interpersonal cognition), and/or broadened the scope of the framework (e.g., three-layer personality). In the end, finding an overarching theoretical framework to act as a blueprint for the program of research proved to be an integral and valuable step in the research process.

Applying an Understanding of Relational Body Image

The results from our three empirical studies, and from our overall research process, have demonstrated the value of considering a relational conceptualization of body image rather than a purely individual, intrapersonal conceptualization. Given that we found support for a “novel” conceptualization of body image - at least in contemporary research - potential implications and future research directions are wide-spread. First, at a practical level, there are several clear implications for how relational body image could be applied within clinical assessment, treatment, and prevention. Yet, given that relational body image has yet to be tested with a clinical population, these suggestions would need to be bolstered by future research in clinical settings. Secondly, our findings also have implications at a theoretical and methodological level, including how to conduct comprehensive and cohesive research on body image concepts. There are also future research directions in these domains, with a particular focus being how to integrate relational body image into existing body image research.

Practical Implications

Firstly, across all three studies I found support for the hypothesis that body image varies across relationships and is predicted by the perceived characteristics of other people. Importantly, I also found that relational variability in body image is greater for individuals at elevated risk for maladaptive body image (Waring et al., 2022). These results thus point to the importance of considering how our research findings could start to be applied in clinical settings with body-dissatisfied individuals.

Assessment and Formulation. One implication from the current program of research is to assess body image in clinical settings in ways that account for the fact that a given individual’s body image may be more relationally-based and variable than previously thought. A

straightforward way to begin could be to adapt trait body image measures to orient individuals to their body image in specific relationships, and then to ask individuals to complete these measures for each of their key relationships (e.g., partner, close friend, mother). The collection of relationally-based information as part of a body image assessment would then allow body image to be formulated at a relational level. For example, one could imagine including specific relationships when formulating the various presenting, predisposing, precipitating, perpetuating, and protective factors that have contributed to their current body image. For instance, one's relational body image with members of their family of origin could be both a predisposing factor and perpetuating factor for body image distress, whereas relational body image with one's best friend or partner may be a protective factor against this distress. Understanding the differential influence of an individual's close relationships could then guide therapy in specific ways (see Treatment section below). However, given that relationship-specific body image measures have yet to be used with clinical populations, future research would also need to test the psychometrics of the measures in clinical settings.

Assessing relationship-specific body image relationally would also allow for the degree of overall variability in body image an individual experiences across their close relationships to be calculated. Currently, our findings suggest that this information may provide some indication about risk for maladaptive body image (Waring et al., 2022). One could thus imagine screening for the degree of overall variability in relational body image in other relevant, clinical populations (e.g., eating disorders, trauma or stressor-related disorders) to determine whether or not a focus on body image as part of treatment may be warranted. However, future research on within-person variability in relational body image within clinical settings will also be needed. Specifically, future clinical research could examine whether body image stability, and in

particular whether having consistently poor body image across all relationships, may also be an indicator of maladaptive trait body image. It may be, for example, that a quadratic relationship exists whereby individuals who tend to have very positive or negative overall body image demonstrate greater consistency in their body image levels across their relationships, whereas individuals with somewhat negative body image may have greater variability across relationships.

Lastly, within-person variability in relational body image may be indicative of other interpersonal patterns as well. For example, past social research has found that individuals who have more extreme fluctuations in their overall self-attitudes across relationships tend to exhibit a more externally-based sense of self, a more ambivalent/preoccupied attachment style, and thus a less cohesive and anchored sense of identity overall (Kernis, 2005). Future research with clinical populations could thus also examine whether more extreme fluctuations in overall relational body image levels is also related to similar correlates. If this were the case, then calculating overall variability in relational body image could also help clinicians begin to formulate the types of broader interpersonal difficulties they may also want to target as part of treatment.

Treatment. Given that the current body of research highlights a clear connection between an individual's body image and their close relationships, another domain that the current research may apply to is clinical intervention. In particular, body-image related treatments may benefit from beginning to target relational patterns that contribute to body image distress. Currently, many body image-related interventions primarily target changes in individually-based symptoms (e.g., thoughts, feelings, and behaviours related to body image; Cash et al., 2008, Waller et al., 2019). However, targeting relational “roots” in order to improve individually-based

symptoms is a common approach in many other clinical modalities (e.g., Curtis, 2020, Hewitt et al., 2017; Levenson, 2010, 2017; Strupp & Binders, 1984; Tasca et al., 2021). Thus, similar to how I borrowed relationally-based methods and theories from other disciplines to research relational body image, I suggest there may be merit to borrowing aspects of relationally-based clinical treatments to garner ideas for how relational patterns could be targeted as part of body image treatment. For example, the focus in many interpersonally-based psychodynamic treatments is helping the client learn more adaptive relational patterns, especially through the therapeutic relationship (e.g., Levenson, 2017). Future research in body image treatment could thus examine whether employing similar interpersonally-based treatment approaches with body image concerns would lead to downstream improvement in body image-related symptoms.

Additionally, given that our results suggest an interconnection between body image and relationships, it is likely that more relationally-based treatments could also benefit from an increased focus on body image. For example, research on trauma-and-stressor related disorders now increasingly point to the influences of trauma on one's body and on one's relationships (e.g., Brand et al., 2022; Siegal & Solomon, 2003). Taking a relational view of body image could thus provide a point of overlap between body image treatments and other treatments that tend to focus on different, yet related, concerns. Future research could then investigate whether consolidating complementary areas of clinical expertise through a common construct such as relational body image could help to promote the development of more transdiagnostic and holistic interventions. Such interventions may be able to target comorbid concerns, such as experiences of trauma and body image distress (Longobardi et al., 2022; Sack et al., 2010; Scheffers et al., 2017), more efficiently and effectively.

Lastly, the results from the program of research have also highlighted the value of integrating critical-feminist approaches, in part, to bring awareness to the often-invisible societal discourse that underpins research and treatment (Weedon, 1997). For example, critical-feminist research has highlighted the increasingly neoliberal approach of many body image treatments (Blood, 2005; Riley et al., 2023). Such treatments can unintentionally put responsibility on, and thus indirectly blame, individuals for needing to make personal changes rather than recognizing the systemic roots of much human distress. This same criticism has been levied against body image treatments that have focus on trying to “change other people” be it family members, parents, or peers (Atkinson et al., 2020, pg. 54). We think these criticisms are worthwhile to consider when thinking about the practical implications of our program of research.

Of note, a criticism of critical-feminist approaches is that they can risk focusing too exclusively on systems-level causes, which can result in individuals feeling helpless and hopeless to enact any changes in their own lives (Thompson et al., 2018). Based on the results of the current program of research, I wonder whether a relationally-based body image treatment may actually offer a bridge between individual and system-level contributors to body image, thus highlighting that body image difficulties are nobody’s fault but everyone’s responsibility (Gilbert, 2010). For example, although participants in Study 3 were only asked to consider how others’ attitudes and behaviours impacted their own body image, this appeared to prompt participants to reflect on how others’ interactions with them were related to both macro-level contributors, such as fatphobia, immigration, and queer identity, but also as micro-level factors, such as the context within which they interacted with their close others.

Future research could thus examine the degree to which different body image treatment targets (e.g., individual, relational, and systemic) promote both critical thought about systemic

factors and (hopefully) reduce shame and blame, while also instilling self-efficacy and hope for change. Importantly, my program of research points to the value of seeing individual, relational, and systemic factors as interconnected rather than as mutually exclusive or isolated targets for treatment. As such, I would be interested to see future treatments in body image begin to incorporate not only a more relationally-based focus, but more specifically begin to integrate a conceptualization of body image that sees individuals, close relationships, and societal influences as interconnected, and which encourages understanding and change across each of these levels.

Prevention. Seeing relational body image as interrelated with systemic and individual influences also has implications for prevention and advocacy work. In particular, the construct of relational body image implies that not only do other people influence your body image, but that you influence others' body image as well. As such, the findings suggest that a target for advocacy/prevention work could be encouraging individuals to model attitudes and behaviours that challenge harmful societal pressures about bodies and appearance in their own relationships. While existing body image prevention programs already encourage individuals to resist societal pressure through individual actions (e.g., Stice et al., 2012), relational body image could offer a unique perspective in that it could help people see their own actions as being capable of creating a positive ripple-like effect across their relationships (Miller et al., 2022). For example, a woman could decide to stop shaving her legs as an act of advocacy and then be encouraged to discuss, or model, this choice with her friends. Over time, her influence may help her friends feel more comfortable to stop shaving their legs as well. Future research could thus examine whether encouraging individuals to challenge harmful body image pressures in their close relationships through modelling may increase an individual's self-efficacy and optimism to challenge societal

body image pressures as well as actually prompt people in their life to make positive changes to their body image attitudes and behaviours.

Methodological and Theoretical Implications

In addition to practically-based implications, our research suggests several methodological and theoretical implications. Firstly, the current program of research demonstrates how a “slower,” theory-driven, and process-focused approach to research may be particularly helpful when trying to develop more integrative understandings. This is an idea that is starting to sprout up across psychological work, with new innovations in personality (Blum et al., 2021) and clinical science (Ong et al., 2022) also turning towards process-based approaches that integrate knowledge across specific subfields to generate “a model of models” (Ong et al., 2022, pg. 2). Indeed, in the current research, I was able to be more expansive with certain aspects of the research, such as the literature review, because I had an overarching theoretical framework to help contain the overall research process. As such, future research in body image that also aims to promote greater consolidation and collaboration across research areas (Atkinson et al., 2020), may also benefit from intentionally reflecting on the research process to ensure that it contains the methodological elements necessary to meet the increasingly integrative aims of psychology. Our work suggests that an expansive literature review and a broad theoretical framework may be two such elements.

The current program of research also suggests the value of specifically using social-cognitive theories of personality, including the three-layer view of personality (McAdams, 2015, McAdams, 2021) to help integrate contemporary body image research. More specifically, a new direction in personality research that body image researchers may benefit from is “defocusing from broader variability patterns and meticulously studying specific and contextualized

behaviours, thoughts, feelings and goals, [to produce] causal explanations [that are] more complex, phenomenon-specific, and person-specific” (Möttus et al., 2022, pg. 1176). Indeed, I have found much empirical value from conceptualizing body image as a complex configuration of interconnected factors within a theoretically-relevant context. I thus believe that greater integration between body image trait models, within-person variability body image research, and idiographic qualitative understandings of body image could be possible if contemporary personality research on social-cognition was consulted.

While a broad objective of my program of research was to work towards greater integration in the body image field, the specific theoretical mechanism that I believed would help achieve this objective was a relational conceptualization of body image. While the current program of research did not compare the integrative potential of relational body image to other constructs, across all three studies, I did consistently find that relational conceptualizations of body image were a relevant bridge to many different theories and methods. As such, at the conclusion of this program of research, I have further confidence that specific relationships are a worthwhile context to consider when trying to develop a more comprehensive and cohesive understanding of body image. It certainly seems that relationships are a common vein that run through many current ways of understanding body image, including those that centre trait models (e.g., Tiggemann, 2011, 2019), within-person constructs (e.g., Fuller- Tyszkiewicz, 2019), and interrelated systemic and idiographic processes (e.g., Blood, 2005; Riley et al., 2023). Future research should thus investigate relational conceptualizations in these different subareas, with the hope that they may eventually act as a common denominator that can bring these different areas together.

Strengths and Limitations

The current program of research has several interrelated strengths and limitations. Firstly, all three studies used a convenience sample of cis-gendered women from a mid-sized Canadian university. The narrowness of our samples limits the generalizability of our results in important ways. However, besides convenience, a sample of university-aged cis-gendered women was also chosen because the current program of research was the first to study relational body image. As such, a common sample across all three studies was desired in order to form an understanding of the construct. Like other psychological research (Tindle, 2021), past research on body image has been largely conducted with college samples, and in particular with college women. Cis-gendered women attending university were thus a well-suited sample for the research aims. In addition, our university samples did have diversity in other identities, including a range of ethnic, racial, religious, sexual orientation, and immigration-status positionalities. Nevertheless, it will be important for future research to re-examine relational body image in other samples. Past research on other body image constructs suggests that it may be particularly worthwhile to start to investigate relational body image among individuals with more expansive intersectional identities (Lowy et al., 2021), including gender and age, as well with relevant clinical populations (Prnjak & Murray, 2021), such as individuals with eating disorders and experiences of trauma.

Another limitation of the current program of research is that it did not investigate how relational body image could be applied as part of a clinical intervention. While I derived a number practical implications from our results, future applied research with relational body image will be needed to more fully understand how and if relational body image can be built into the assessment, treatment, or prevention of body image-related distress. However, while it is in

some ways a weakness that the current research focused exclusively on developing an empirically-informed conceptualization of relational body image, in other ways, it is also a strength. Indeed, researchers have been cautioned against too quickly translating research into clinical applications, and not carefully working through incremental stages when designing a new intervention (Rounsaville et al., 2006). Given that relational body image is a new way of conceptualizing body image, I believed that it was a more achievable aim to use the current program of research to try and develop a reliable, valid, and nuanced understanding of relational body image. Given that I found solid empirical support for our conceptualization of relational body image across all three studies, it is now an ideal time for future research to start to investigate the potential clinical applications of relational body image.

A last point of consideration is that all three studies incorporated a fairly wide range of methods and theories. While I have discussed how this was a strength of the research, I also want to acknowledge the limits of such an approach. Based on the research objectives, I chose to use a range of different methods and theories within and across each of the three studies. As a result, the program of research reads more like an examination of the same construct through different theoretical and methodological lenses rather than a linear progression of empirically-informed hypothesis testing. Consequently, a number of more quantitatively-driven hypotheses remain to be tested in future research. These include psychometric evaluation of my adapted relationship-specific body image measures; a formal examination of the correlates of relational body image; and the development and testing of structural models that include relational body image and other constructs.

Conclusions

The current program of research consisted of three studies that incorporated a range of methods and theories to develop and evaluate an initial conceptualization of relational body image. Across all three studies, I found support for the general hypothesis that women's body image levels would change across their important relationships, and that the characteristics of other people would be related to these changes. I also further honed this conceptualization through investigating individual differences in relational body image and through exploring women's subjective experiences of relational body image. The broad range of evidence found for the construct of relational body image suggests that future research should begin to investigate how to incorporate a relational conceptualization of body image into clinical settings.

The results of the research also demonstrated that relational conceptualizations of body image have the potential to bridge different theories and methods both within and beyond the body image literature. Thus, for future researchers who would like to further consolidate research within the body image field (Atkinson et al., 2020), the results suggest the potential benefit of using relationally-based constructs as a mechanism to integrate different theories and methods. Taken altogether, then, the current program of research found significant support for the relevance and value of relational body image.

At the end of this program of research, as in the beginning, I find myself drawn to others' past wisdom. In Schilder's (1935/1950) book, which outlined the very first conceptualization of body image, he concluded his introduction by stating,

“It is a wider range of problems that we have to study. The solution of these problems is a task beyond the reach of the single worker. I do not believe that psychological and philosophical problems can be solved by a priori methods. We need the continual contact

with the inexhaustible world of reality. One may approach this reality with theories and thoughts which will prove their value in leading to new aspects and to new facts. When a set of psychological assumption leads us to these results, its relative value will be proved. But whenever it leads into reality it will come out of this reality changed and enriched and should again lead to new attempts. Theories and thoughts, therefore, can only be passing phases in the asymptotic approach to reality” (pg. 16).

I too hope that our conceptualization of relational body image can now start to find its way into the inexhaustible world of reality.

References

- Abele, A. E., & Wojciszke, B. (2007). Agency and communion from the perspective of self versus others. *Journal of Personality and Social Psychology*, 93, 751–763.
<https://doi.org/10.1037/0022-3514.93.5.751>
- Adler J. M. (2012). Living into the story: agency and coherence in a longitudinal study of narrative identity development and mental health over the course of psychotherapy. *Journal of personality and social psychology*, 102(2), 367–389.
<https://doi.org/10.1037/a0025289>
- Adler, J. M., & Clark, L. A. (2019). Incorporating narrative identity into structural approaches to personality and psychopathology. *Journal of Research in Personality*, 82, 103857.
<https://doi.org/10.1016/j.jrp.2019.103857>
- Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: Assessed in the strange situation and at home*. Erlbaum.
- Alleva, J. M., Martijn, C., Van Breukelen, G. J. P., Jansen, A., & Karos, K. (2015). Expand Your Horizon: A programme that improves body image and reduces self-objectification by training women to focus on body functionality. *Body Image*, 15, 81-89.
- Ali, M. M., Amialchuk, A., & Renna, F. (2011) Social network and weight misperception among adolescents. *Southern Economic Journal*, 77, 827–842.
<https://www.jstor.org/stable/23057313>
- Andersen, S. M., & Baum, A. (1994). Transference in interpersonal relations: Inferences and affect based on significant-other representations. *Journal of Personality*, 62(4), 459–497.
<https://doi.org/10.1111/j.1467-6494.1994.tb00306.x>

- Andersen, S. M., & Chen, S. (2002). The relational self: an interpersonal social-cognitive theory. *Psychological Review*, 109(4), 619–645. <https://doi.org/10.1037/0033-295x.109.4.619>
- Andersen, S. M., & Cole, S. W. (1990). "Do I know you?": The role of significant others in general social perception. *Journal of Personality and Social Psychology*, 59(3), 384–399. <https://doi.org/10.1037/0022-3514.59.3.384>
- Andersen, S. M., & Glassman, N. S. (1996). Responding to significant others when they are not there: Effects on interpersonal inference, motivation, and affect. In R. M. Sorrentino & E. T. Higgins (Eds.), *Handbook of motivation and cognition* (Vol. 3, pp. 262–321). Guilford.
- Andersen, S. M., Reznik, I., & Chen, S. (1997). The self in relation to others: Cognitive and motivational underpinnings. In J. G. Snodgrass & R. L. Thompson (Eds.), *The self across psychology: Self-recognition, self-awareness, and the self-concept* (pp. 233–275). New York Academy of Science.
- Andersen, S. M., Reznik, I., & Glassman, N. S. (2005). The unconscious relational self. In R. Hassin, J. S. Uleman, & J. A. Bargh (Eds.), *The new unconscious* (pp. 421–481). Oxford University Press.
- Andersen, S. M., Reznik, I., & Manzella, L. M. (1996). Eliciting transient affect, motivation, and expectancies in transference: Significant-other representations and the self in social relations. *Journal of Personality and Social Psychology*, 71, 1108–1129.
- Andersen, S. M., & Saribay, S. A., (2006). The relational self and transference: Evoking motives, self-regulation, and emotions through activation of mental representations of significant others. In M. W. Baldwin (Ed.), *Interpersonal Cognition* (pp. 1–32). The Guilford Press.

- Andersen, S. M., Tuskeviciute, R., Przybylinski, E., Ahn, J. N., & Xu, J. H. (2016). Contextual variability in personality from Significant–Other knowledge and relational selves. *Frontiers in Psychology, 6*, 1882.
- Andrew, R., Tiggemann, M., & Clark, L. (2015). Predictors of intuitive eating in adolescent girls. *The Journal of Adolescent Health, 56*(2), 209–214.
<https://doi.org/10.1016/j.jadohealth.2014.09.005>
- Andrew, R., Tiggemann, M., & Clark, L. (2016). Predicting body appreciation in young women: An integrated model of positive body image. *Body Image, 18*, 34–42.
- Aron, A., Aron, E. N., Tudor, M., & Nelson, G. (1991). Close relationships as including other in the self. *Journal of Personality and Social Psychology, 60*(2), 241–253.
<https://doi.org/10.1037/0022-3514.60.2.241>
- Arroyo, A., Southard, B. A. S., & Martz, D. (2022). Feminist embodiment, body talk, and body image among mothers and daughters. *Body Image, 41*, 354–366.
- Arruzza, C., Bhattacharya, T., & Fraser, N. (2019). *Feminism for the 99%: A Manifesto*. Verso.
- Ashton M. C., Lee K., & de Vries R. E. (2014). The HEXACO honesty–humility, agreeableness, and emotionality factors. *Personality and Social Psychology Review, 18*, 139–152.
- Atkinson, M. J., Stock, N. M., Alleva, J. M., Jankowski, G. S., Piran, N., Riley, S., Calogero, R., Clarke, A., Rumsey, N., Slater, A., Diedrichs, P. C., & Williamson, H. (2020). Looking to the future: Priorities for translating research to impact in the field of appearance and body image. *Body Image, 32*, 53–61. <https://doi.org/10.1016/j.bodyim.2019.10.006>
- Augustus-Horvath, C. L., & Tylka, T. L. (2011). The acceptance model of intuitive eating: A comparison of women in emerging adulthood, early adulthood, and middle adulthood. *Journal of Counseling Psychology, 58*(1), 110.

- Avalos, L. C., & Tylka, T. L. (2006). Exploring a model of intuitive eating with college women. *Journal of Counselling Psychology*, 53, 486-497.
- Back, M. D., Baumert, A., Denissen, J. J. A., Hartung, F.-M., Penke, L., Schmukle, S. C., Schönbrodt, F. D., Schröder-Abé, M., Vollmann, M., Wagner, J., & Wrzus, C. (2011). PERSOC: A unified framework for understanding the dynamic interplay of personality and social relationships. *European Journal of Personality*, 25(2), 90–107.
<https://doi.org/10.1002/per.811>
- Baird, B. M., Le, K., & Lucas, R. E. (2006). On the nature of intraindividual personality variability: Reliability, validity, and associations with well-being. *Journal of Personality and Social Psychology*, 90(3), 512–527. <http://dx.doi.org/10.1037/0022-3514.90.3.512>.
- Bakan, D. (1966). In) (Ed.), *The Duality of Human Existence: Isolation and communication in western man*. Beacon Press.
- Bakdash, J. Z. & Marusich, L. R. (2017). Repeated measures correlation. *Frontiers in Psychology*. <https://doi.org/10.3389/fpsyg.2017.00456>
- Baldwin, M. W. (1992). *Relational schemas and the processing of social information*. *Psychological Bulletin*, 112(3), 461–484. <https://doi.org/10.1037/0033-2909.112.3.461>
- Baldwin, M. W. (1997). Relational schemas as a source of if–then self-inference procedures. *Review of General Psychology*, 1(4), 326–335. <https://doi.org/10.1037/1089-2680.1.4.326>
- Baldwin, M. W. (Ed.). (2006). *Interpersonal cognition*. Guilford Press.

- Baldwin, M. W., Keelan, J. P. R., Fehr, B., Enns, V., & Koh-Rangarajoo, E. (1996). Social-cognitive conceptualization of attachment working models: Availability and accessibility effects. *Journal of Personality and Social Psychology*, 71(1), 94–109.
<https://doi.org/10.1037/0022-3514.71.1.94>
- Bandura, A. (1999). Social cognitive theory of personality. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (pp. 154–196). Guilford Press.
- Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: a test of a four-category model. *Journal of Personality and Social Psychology*, 61(2), 226–244.
<https://doi.org/10.1037//0022-3514.61.2.226>
- Baumert, A., Schmitt, M., & Perugini, M. (2019). Towards an explanatory personality psychology: Integrating personality structure, personality process, and personality development. *Personality and Individual Differences*, 147, 18–27.
<https://doi.org/10.1016/j.paid.2019.04.016>
- Beckmann, N., Birney, D. P., Beckmann, J. F., Wood, R. E., Sojo, V., & Bowman, D. (2020). Inter-individual differences in intra-individual variability in personality within and across contexts. *Journal of Research in Personality*, 85, 103909.
<https://doi.org/10.1016/j.jrp.2019.103909>
- Bell, B. A., Morgan, G. B., Schoeneberger, J. A., Loudermilk, B. L., Kromrey, J. D., & Ferron, J. M. (2010). Dancing the sample size limbo with mixed models: How low can you go. *SAS Global Forum*, 4, 11-14.
- Benjamin, L. S. (2002). *Interpersonal diagnosis and treatment of personality disorders*. Guilford Press.

- Berenson, K. R., & Andersen, S. M. (2006). Childhood Physical and Emotional Abuse by a Parent: Transference Effects in Adult Interpersonal Relations. *Personality and Social Psychology Bulletin*, 32(11), 1509–1522. <https://doi.org/10.1177/0146167206291671>
- Berk, M. S., & Andersen, S. M. (2000). The impact of past relationships on interpersonal behaviour: behavioural confirmation in the social-cognitive process of transference. *Journal of Personality and Social Psychology*, 79(4), 546–562.
- Berk, M. S., & Andersen, S. M. (2008). The sting of lack of affection: Chronic goal dissatisfaction in transference. *Self and Identity*, 7, 393–412.
- Blatt, S. J. (2008). *Polarities of experience: Relatedness and self-definition in personality development, psychopathology, and the therapeutic process*. American Psychological Association.
- Blood, S. K. (2005). *Body work: The social construction of women's body image*. Routledge.
- Blum, G. S., Baumert, A., & Schmitt, M. (2021). Personality processes—From description to explanation. In J. F. Rauthmann (Ed.), *The handbook of personality dynamics and processes* (pp. 33–55). Elsevier Academic Press.
- Bordo, S. (1993a). *Unbearable weight: Feminism, Western culture, and the body*. University of California Press.
- Bordo, S. (1993b). Feminism, Foucault and the politics of the body. In C. Ramazanoglu (Ed.), *Up against Foucault: Explorations of some tensions between Foucault and feminism* (pp.179). Routledge.
- Bordo, S. (2009). Not just "a White girl's thing": The changing face of food and body image problems. In H. Malson & M. Buree (Eds.), *Critical feminist approaches to eating dis/orders* (pp. 46–60). Routledge.

- Bowlby, J. (1969). *Attachment and loss: Volume I: Attachment*. Basic Books.
- Bowlby, J. (1973). *Attachment and loss: Volume II: Separation, anxiety, and anger*. The Hogarth Press and The Institute of Psycho-Analysis.
- Bowlby, J. (1980/2008). *Attachment and loss: Volume III: Loss-sadness and depression*. Random House.
- Bowlby, J. (1988). *A secure base: Parent-child attachment and healthy human development*. Basic Books.
- Breines, J. G., Crocker, J., & Garcia, J. A. (2008). Self-objectification and well-being in women's daily lives. *Personality and Social Psychology Bulletin*, 34, 583–598.
<http://dx.doi.org/10.1177/014616731327>
- Brennan, K. A., & Shaver, P. R. (1998). Attachment styles and personality disorders: Their connections to each other and to parental divorce, parental death, and perceptions of parental caregiving. *Journal of Personality*, 66(5), 835–878.
<https://doi.org/10.1111/1467-6494.00034>
- Brown, T. A., Cash, T. F., & Mikulka, P. J. (1990). Attitudinal body image assessment: Factor analysis of the Body-Self Relations Questionnaire. *Journal of Personality Assessment*, 55, 135-144.
- Bucchianeri, M. M., & Neumark-Sztainer, D. (2014). Body dissatisfaction: An overlooked public health concern. *Journal of Public Mental Health*, 13, 64-69.
<https://doi.org/10.1108/JPMH-11-2013-0071>
- Budgeon, S. (2021). Making feminist claims in the post-truth era: the authority of personal experience. *Feminist Theory*, 22(2), 248–267.
<https://doi.org/10.1177/1464700120988638>

- Brand, B. L., Schielke, H. J., Schiavone, F., & Lanius, R. A. (2022). *Finding Solid Ground: Overcoming Obstacles in Trauma Treatment*. Oxford University Press.
- Braun, V., & Clarke, V. (2013). *Successful qualitative research: A practical guide for beginners*. SAGE Publishing.
- Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, 11(4), 589–597.
<https://doi.org/10.1080/2159676X.2019.1628806>
- Braun, V., & Clarke, V. (2021). One size fits all? What counts as quality practice in (reflexive) thematic analysis? *Qualitative Research in Psychology*, 18(3), 328–352.
<https://doi.org/10.1080/14780887.2020.1769238>
- Braun, V., & Clarke, V. (2022). Conceptual and design thinking for thematic analysis. *Qualitative Psychology*, 9(1), 3–26. <https://doi.org/10.1037/qup0000196>
- Braun, V., Clarke, V., & Hayfield, N. (2022). ‘A starting point for your journey, not a map’: Nikki Hayfield in conversation with Virginia Braun and Victoria Clarke about thematic analysis. *Qualitative Research in Psychology*, 2, 424–445.
<https://doi.org/10.1080/14780887.2019.1670765>
- Bridges, D., Lewis, C., Wulff, E., Litchfield, C., & Bamberry, L. (Eds.). (2023). *Gender, feminist, and queer studies: Power, privilege, and inequality in a time of neoliberal conservatism*. Routledge.
- Burke, E. (2006). Feminine visions: Anorexia and contagion in pop discourse. *Feminist Media Studies*, 6(3), 315–330.

- Buote, V. M., Wilson, A. E., Strahan, E. J., Gazzola, S. B., & Papps, F. (2011). Setting the bar: Divergent sociocultural norms for women's and men's ideal appearance in real-world contexts. *Body Image*, 8(4), 322–334. <https://doi.org/10.1016/j.bodyim.2011.06.002>
- Byrne, D. (2022). A worked example of Braun and Clarke's approach to reflexive thematic analysis. *Quality & Quantity*, 56, 1391–1412. <https://doi.org/10.1007/s11135-021-01182-y>
- Cafri, G., Yamamiya, Y., Brannick, M., & Thompson, J. K. (2005). The influence of sociocultural factors on body image: A meta-analysis. *Clinical Psychology: Science and Practice*, 12(4), 421–433. <https://doi.org/10.1093/clipsy.bpi053>
- Calogero, R. M., & Tylka, T., & Siegel, J. A. (2019) Personal safety as bedrock and safeguard for positive embodiment. In T. L. Tylka & N. Pivan (Eds.), *Handbook of positive body image and embodiment: Constructs, protective factors, and interventions* (pp. 139–148). Oxford University Press.
- Canadian Mental Health Association (2014). Learn about eating disorders. <https://www.heretohelp.bc.ca/sites/default/files/eating-disorders.pdf>
- Carels, R. A., Rossi, J., Solar, C., & Selensky, J. C. (2019). An ecological momentary assessment of weight stigma among weight loss participants. *Journal of Health Psychology*, 24(9), 1155–1166. <https://doi.org/10.1177/1359105317692855>
- Carrard, I., Rothen, S., & Rodgers, R. F. (2020). Body image and disordered eating in older women: A Tripartite Sociocultural model. *Eating behaviours*, 38, 101412. <https://doi.org/10.1016/j.eatbeh.2020.101412>

- Carter, A., Forrest, J. I., & Kaida, A. (2017). Association between internet use and body dissatisfaction in young females: Cross-sectional analysis of the Canadian community health survey. *Journal of Medical Internet Research*, 19, e39.
<https://doi.org/10.2196/jmir.5636>
- Cash, T. F. (1990). The psychology of physical appearance: Aesthetics, attributes, and images. In T. F. Cash & T. Pruzinsky (Eds.), *Body images: Development, deviance, and change* (pp. 51–79). The Guilford Press.
- Cash, T. F. (1994). The Situational Inventory of Body-Image Dysphoria: Contextual assessment of a negative body image. *Behaviour Therapist*, 17, 133-133.
- Cash, T. F. (2000). *MBSRQ users' manual*. Old Dominion University.
- Cash, T. F. (2001). The treatment of body image disturbances. In J. K. Thompson (Ed.), *Body image, eating disorders, and obesity: An integrative guide for assessment and treatment* (pp. 83–107). *American Psychological Association*. <https://doi.org/10.1037/10502-004>
- Cash T. F. (2002). The situational inventory of body-image dysphoria: psychometric evidence and development of a short form. *The International journal of eating disorders*, 32(3), 362–366. <https://doi.org/10.1002/eat.10100>
- Cash, T. F. (2004). Body image: Past, present, and future [Editorial]. *Body Image*, 1(1), 1–5. [https://doi.org/10.1016/S1740-1445\(03\)00011-1](https://doi.org/10.1016/S1740-1445(03)00011-1)
- Cash, T. F. (2008). *The body image workbook: An eight-step program for learning to like your looks* (2nd ed.). New Harbinger Productions.
- Cash, T. F., Fleming, E. C., Alindogan, J., Steadman, L., & Whitehead, A. (2002). Beyond body image as a trait: The development and validation of the Body Image States Scale. *Eating Disorders*, 10, 103-113. <http://dx.doi.org/10.1080/10640260290081678>Cash.

- Cash, T. F., & Pruzinsky, T. (Eds.). (1990). *Body images: Development, deviance, and change*. The Guilford Press.
- Cash, T. F., & Pruzinsky, T. (Eds.). (2002a). *Body Image: A handbook of theory, research, and clinical practice*. The Guilford Press.
- Cash, T. F., & Pruzinsky, T. (2002a). Understanding body images: Historical and contemporary perspectives. In T. F. Cash & T. Pruzinsky (Eds.), *Body image: A handbook of theory, research, and clinical practice* (pp. 3–12). The Guilford Press.
- Cash, T. F., & Pruzinsky, T. (2011). Understanding body images: Historical and contemporary perspectives. In T. F. Cash & L. Smolak (Eds.), *Body image: A handbook of science,, practice, and prevention* (pp. 3–11). The Guilford Press.
- Cash, T. F., & Smolak, L. (2011a). *Body image: A handbook of science, practice, and prevention* (2nd ed.). The Guilford Press.
- Cash, T. F., & Smolak, L. (2011b). Understanding body images: Historical and contemporary perspectives. In T. F. Cash & L. Smolak (Eds.), *Body image: A handbook of science, practice, and prevention* (pp. 3–12). The Guilford Press.
- Castañeda, E. (Ed.). (2017). *Immigration and categorical inequality: Migration to the city and the birth of race and ethnicity*. Routledge.
- Chen, S., & Andersen, S. M. (1999). Relationships from the past in the present: Significant-other representations and transference in interpersonal life. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 31, pp. 123–190). Academic Press.
- Chen, S., Andersen, S. M., & Hinkley, K. (1999). Triggering transference: Examining the role of applicability in the activation and use of significant-other representations in social perception. *Social Cognition*, 17, 332–365.

- Chen, S., Boucher, H. C., Andersen, S. M., & Saribay, S. A. (2013). Transference and the relational self. In J. A. Simpson & L. Campbell (Eds.), *The Oxford handbook of close relationships* (pp. 281–305). Oxford University Press.
- Chen, S., Boucher, H. C., & Kraus, M. W. (2011). The relational self: Emerging theory and evidence. In V. L. Vignoles, S. Schwartz, & K. Luyckx (Eds.), *Handbook of identity theory and research* (pp. 149–175). Springer.
- Chen, S., Boucher, H. C., & Tapias, M. P. (2006). The relational self revealed: integrative Conceptualization and implications for interpersonal life. *Psychological Bulletin*, 132(2), 151–179. <https://doi.org/10.1037/0033-2909.132.2.151>
- Chen, S., Fitzsimons, G. M., & Andersen, S. M. (2007). Automaticity and close relationships. In J. A. Bargh (Ed.), *Social psychology and the unconscious: The automaticity of higher mental processes* (pp. 133–172). Psychology Press.
- Chrisler, J. C., & Johnston-Robledo, I. (2018). *Woman's embodied self: Feminist perspectives on identity and image*. American Psychological Association.
<https://doi.org/10.1037/0000047-000>
- Church, A. T., Katigbak, M. S., Ching, C. M., Zhang, H., Shen, J., Arias, R. M., ... Alvarez, J.M. (2013). Within-individual variability in self-concepts and personality states: Applying density distribution and situation-behaviour approaches across cultures. *Journal of Research in Personality*, 47(6), 922–935. <https://doi.org/10.1016/j.jrp.2013.09.002>.
- Church, A. T., Katigbak, M. S., Reyes, J. A. S., Salanga, M. G. C., Miramontes, L. A., & Adams, N. B. (2008). Prediction and cross-situational consistency of daily behaviour across cultures: Testing trait and cultural psychology perspectives. *Journal of Research in Personality*, 42(5), 1199–1215. <http://dx.doi.org/10.1016/j.jrp.2008.03.007>.

- Clarke, V., & Braun, V. (2019). Feminist qualitative methods and methodologies in psychology: A review and reflection. *Psychology of Women and Equalities Section Review*, 2(1), 13-28.
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112, 155-159.
- Coleman, R. (2009). *The becoming of bodies: Girls, images, experience*. Manchester University Press.
- Connolly, B. S., & Ones, D. S. (2010). An other perspective on personality: Meta-analytical integration of observers' accuracy and predictive validity. *Psychological Bulletin*, 136, 1092-1122.
- Cook-Cottone C. P. (2015). Incorporating positive body image into the treatment of eating disorders: A model for attunement and mindful self-care. *Body Image*, 14, 158–167.
<https://doi.org/10.1016/j.bodyim.2015.03.004>
- Cook-Cottone, C. (2019). Mindful self-attunement. In T. L. Tylka & N. Pivan (Eds.), *Handbook of positive body image and embodiment: Constructs, protective factors, and interventions* (pp. 58–67). Oxford University Press.
- Cook-Cottone, C. (2020). *Embodiment and the treatment of eating disorders: The body as a resource in recovery*. W. W. Norton & Company.
- Cook-Cottone, C. P., Estey, E. E., & Guyker, W. M. (2020). A district-wide qualitative study of yoga in the schools: outcomes and challenges. *Contemporary School Psychology*, 24(2), 113-127.
- Cooley, C. H. (2002/2017). *Human nature and the social order*. Routledge.
- Cooper, A. M. (1987). Changes in psychoanalytic ideas: Transference interpretation. *Journal of the American Psychoanalytic Association*, 35(1), 77-98.

- Corning, A. F., Krumm, A. J., & Smitham, L. A. (2006). Differential social comparison processes in women with and without eating disorder symptoms. *Journal of Counseling Psychology*, 53, 338–349. <https://doi.org/10.1037/0022-0167.53.3.338>
- Corr, P. J., & Matthews, G. (Eds.). (2009). *The Cambridge handbook of personality psychology*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511596544>
- Costa P. T., & McCrae R. R. (1985). *The NEO personality inventory*. Psychological Assessment Resources.
- Cox, A. E., Ullrich-French, S., Cook-Cottone, C., Tylka, T. L., & Neumark-Sztainer, D. (2020). Examining the effects of mindfulness-based yoga instruction on positive embodiment and affective responses. *Eating disorders*, 28(4), 458-475.
- Cozzarelli, C., Hoekstra, S. J., & Bylsma, W. H. (2000). General versus specific mental models of attachment: Are they associated with different outcomes? *Personality and Social Psychology Bulletin*, 26(5), 605–618. <https://doi.org/10.1177/0146167200267008>
- Curtis, R. C. (2020). Relational psychoanalytic/psychodynamic psychotherapy. In S. B. Messer & N. J. Kaslow (Eds.), *Essential psychotherapies: Theory and practice* (pp. 71–110). The Guilford Press.
- Debusscher, J., Hofmans, J., & De Fruyt, F. (2016). Do personality states predict momentary task performance? The moderating role of personality variability. *Journal of Occupational and Organizational Psychology*, 89(2), 330–351. <https://doi.org/10.1111/joop.12126>.
- Deci, E. L., & Ryan, R. M. (2012). Self-determination theory. In P. A. M. Van Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), *Handbook of theories of social psychology* (pp. 416–436). Sage Publications Ltd. <https://doi.org/10.4135/9781446249215.n21>

- Dejonckheere, E., & Mestdagh, M. (2021). On the signal-to-noise ratio in real-life emotional time series. In C. E. Waugh & P. Kuppens (Eds.), *Affect dynamics* (pp. 131-152). Springer, Cham. https://doi.org/10.1007/978-3-030-82965-0_7
- Dejonckheere, E., Mestdagh, M., Houben, M., Rutten, I., Sels, L., Kuppens, P., & Tuerlinckx, F. (2019). Complex affect dynamics add limited information to the prediction of psychological well-being. *Nature Human Behaviour*, 3(4), 478-491. <https://doi.org/10.1038/s41562-019-0555-0>
- Dejonckheere, E., Mestdagh, M., Kuppens, P., & Tuerlinckx, F. (2020). Reply to: Context matters for affective chronometry. *Nature Human Behaviour*, 4(7), 690-693. <https://doi.org/10.1038/s41562-020-0861-6>
- DeYoung, C. G. (2015). Cybernetic Big Five Theory. *Journal of Research in Personality*, 56, 33–58. <https://doi.org/10.1016/j.jrp.2014.07.004>
- Dibble, J. L., Levine, T. R., & Park, H. S. (2012). The Unidimensional Relationship Closeness Scale (URCS): Reliability and validity evidence for a new measure of relationship closeness. *Psychological Assessment*, 24, 565-572. Retrieved from <http://dx.doi.org/10.1037/a0026265>
- Dohnt, H., & Tiggemann, M. (2006). The contribution of peer and media influences to the development of body satisfaction and self-esteem in young girls: A prospective study. *Developmental Psychology*, 42(5), 929–936. <https://doi.org/10.1037/0012-1649.42.5.929>
- Dugan, K. A., Fraley, R. C., Gillath, O., & Deboeck, P. R. (2022). Changes in global and relationship-specific attachment working models. *Journal of Social and Personal Relationships*, 39(10). <https://doi.org/10.1177/02654075211051408>

- Dunlop, W. L., Lind, M., & Hopwood, C. J. (2022). Synthesizing contemporary integrative interpersonal theory and the narrative identity approach to examine personality dynamics and regulatory processes. *Journal of Personality*, 1-14.
<https://doi.org/10.1111/jopy.12707>
- Dweck, C. S. (2017). From needs to goals and representations: Foundations for a unified theory of motivation, personality, and development. *Psychological Review*, 124(6), 689–719.
<https://doi.org/10.1037/rev0000082>.
- Edwards, L. J., Muller, K. E., Wolfinger, R. D., Qaqish, B. F., & Schabenberger, O. (2008). An R2 statistic for fixed effects in the linear mixed model. *Statistics in Medicine*, 27, 6137-6157. doi:10.1002/sim.3429
- Eid, M., & Diener, E. (1999). Intraindividual variability in affect: Reliability, validity, and personality correlates. *Journal of Personality and Social Psychology*, 76(4), 662–676.
<https://doi.org/10.1037/0022-3514.76.4.662>
- Evans, A., & Riley, S. (2015). *Technologies of sexiness: Sex, identity, and consumer culture*. Oxford University Press.
- Fairbairn, W. R. D. (1954). *An object-relations theory of the personality*. Basic Books.
- Fallon, P., Katzman, M. A., & Wooley, S. C. (Eds.). (1994). *Feminist perspectives on eating disorders*. The Guilford Press.
- Farber, E. W. (2020). Interpersonal psychotherapy and brief psychodynamic therapies. In S. B. Messer & N. J. Kaslow (Eds.), *Essential psychotherapies: Theory and practice* (pp. 407–442). The Guilford Press.

- Fardouly, J., Pinkus, R. T., & Vartanian, L. R. (2017). The impact of appearance comparisons made through social media, traditional media, and in person in women's everyday lives. *Body Image, 20*, 31-39.
- Faul, F., Erdfelder, E., Buchner, A., & Lang A. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behaviour Research Methods, 41*(4), 1149-1160. <https://doi.org/10.3758/BRM.41.4.1149>
- Field, A., Miles, J., & Field, Z. (2009). *Discovering statistics using R*. Sage Publishing.
- Fischer, S. (1986). *Development and structure of the body image*. Psychology Press.
- Fischer, S., & Cleveland, S. (1968). *Body image and personality*. Dover Publications, Inc.
- Fitzsimmons-Craft, E. E. (2017). Eating disorder-related social comparison in college women's everyday lives. *International Journal of Eating Disorders, 50*, 893–905.
<http://dx.doi.org/10.1002/eat.22725>
- Fitzsimons, G. M., & Anderson, J. E. (2013). Interpersonal cognition: Seeking, understanding, and maintaining relationships. In D. E. Carlston (Ed.), *The Oxford handbook of social cognition* (pp. 590–615). Oxford University Press.
- Fitzsimmons-Craft, E. E., Bardone-Cone, A. M., & Harney, M. B. (2012). Development and validation of Body, Eating, and Exercise Comparison Orientation Measure (BEECOM) among college women. *Body Image, 9*(4), 476-487.
<https://doi.org/10.1016/j.bodyim.2012.07.007>
- Fitzsimmons-Craft, E. E., Bardone-Cone, A. M., Wonderlich, S. A., Crosby, R. D., Engel, S. G., & Bulik, C. M. (2015). The relationships among social comparisons, body surveillance, and body dissatisfaction in the natural environment. *Behaviour Therapy, 46*, 257–271.
<http://dx.doi.org/10.1016/j.beth.2014.09.006>

- Fitzsimmons-Craft, E. E., Harney, M. B., Koehler, L. G., Danzi, L. E., Riddell, M. K., & Bardone-Cone, A. M. (2012). Explaining the relation between thin ideal internalization and body dissatisfaction among college women: The roles of social comparison and body surveillance. *Body Image, 9*, 43–49.
- Fleeson, W. (2001). Toward a structure- and process-integrated view of personality: Traits as density distributions of states. *Journal of Personality and Social Psychology, 80*(6), 1011–1027. <https://doi.org/10.1037/0022-3514.80.6.1011>
- Fleeson, W. (2004). Moving personality beyond the person-situation debate: The challenge and the opportunity of within-person variability. *Current Directions in Psychological Science, 13*(2), 83–87. <https://doi.org/10.1111/j.0963-7214.2004.00280.x>
- Fleeson W. (2007). Situation-based contingencies underlying trait-content manifestation in behaviour. *Journal of personality, 75*(4), 825–861. <https://doi.org/10.1111/j.1467-6494.2007.00458.x>
- Fleeson, W., & Gallagher, P. (2009). The implications of Big Five standing for the distribution of trait manifestation in behaviour: Fifteen experience-sampling studies and a meta-analysis. *Journal of Personality and Social Psychology, 97*(6), 1097–1114. <http://dx.doi.org/10.1037/a0016786>.
- Fleeson, W., & Jayawickreme, E. (2015). Whole Trait Theory. *Journal of Research in Personality, 56*, 82–92. <https://doi.org/10.1016/j.jrp.2014.10.009>
- Fleeson, W., & Jayawickreme, E. (2021). Whole traits: Revealing the social-cognitive mechanisms constituting personality's central variable. In B. Gawronski (Ed.), *Advances in experimental social psychology* (pp. 69–128). Elsevier Academic Press.

- Fleeson, W., & Law, M. K. (2015). Trait enactments as density distributions: The role of actors, situations, and observers in explaining stability and variability. *Journal of Personality and Social Psychology*, 109(6), 1090–1104. <https://doi.org/10.1037/a0039517>
- Fleeson, W., & Nofle, E. E. (2009). In favor of the synthetic resolution to the person-situation debate. *Journal of Research in Personality*, 43(2), 150–154.
<https://doi.org/10.1016/j.jrp.2009.02.008>
- Fletcher, A., Bonell, C., & Sorhaindo, A. (2011). You are what your friends eat: A systematic review of social network analyses of young people’s eating behaviours and bodyweight. *Journal of Epidemiology and Community Health*, 65, 548-555.
[doi:10.1136/jech.2010.113936](https://doi.org/10.1136/jech.2010.113936)
- Fonagy, P., Target, M., Gergely, G., Allen, J. G., & Bateman, A. W. (2003). The developmental roots of borderline personality disorder in early attachment relationships: A theory and some evidence. *Psychoanalytic Inquiry*, 23(3), 412–459.
<https://doi.org/10.1080/07351692309349042>
- Foster, J. D., Kernis, M. H., & Goldman, B. M. (2007). Linking adult attachment of self-esteem stability. *Self and Identity*, 6(1), 64-73. <https://doi.org/10.1080/15298860600832139>
- Foucault, M. (1980). *Power/knowledge: Selected interviews and other writings, 1972-1977*. Vintage.
- Fraley, R. C., & Dugan, K. A. (2021). The consistency of attachment security across time and relationships. In R.A. Thompson, J.A. Simpson, & L.J. Berlin (Eds), *Attachment: The fundamental questions* (pp. 147-153). Guilford Press.

- Fraley, R. C., Heffernan, M. E., Vicary, A. M., & Brumbaugh, C. C. (2011). The experiences in close relationships—Relationship Structures Questionnaire: A method for assessing attachment orientations across relationships. *Psychological Assessment, 23*(3), 615–625. <https://doi.org/10.1037/a0022898>
- Frederick, D. A., Crerand, C. E., Brown, T. A., Perez, M., Best, C. R., Cook-Cottone, C. P., Compte, E. J., Convertino, L., Gordon, A. R., Malcarne, V. L., Nagata, J. M., Parent, M. C., Pennesi, J. L., Pila, E., Rodgers, R. F., Schaefer, L. M., Thompson, J. K., Tylka, T. L., & Murray, S. B. (2022). Demographic predictors of body image satisfaction: The U.S. Body Project I. *Body Image, 41*, 17–31. <https://doi.org/10.1016/j.bodyim.2022.01.011>
- Frederick, D. A., Hazzard, V. M., Schaefer, L. M., Rodgers, R. F., Gordon, A. R., Tylka, T. L., Pennesi, J. L., Convertino, L., Parent, M. C., Brown, T. A., Compte, E. J., Cook-Cottone, C. P., Crerand, C. E., Malcarne, V. L., Nagata, J. M., Perez, M., Pila, E., Thompson, J. K., & Murray, S. B. (2022). Sexual orientation differences in pathways from sociocultural and objectification constructs to body satisfaction: The U.S. Body Project I. *Body image, 41*, 181–194. <https://doi.org/10.1016/j.bodyim.2022.02.002>
- Frederick, D. A., Pila, E., Malcarne, V. L., Compte, E. J., Nagata, J. M., Best, C. R., Cook-Cottone, C. P., Brown, T. A., Convertino, L., Crerand, C. E., Parent, M. C., Pennesi, J. L., Perez, M., Rodgers, R. F., Schaefer, L. M., Thompson, J. K., Tylka, T. L., & Murray, S. B. (2022). Demographic predictors of objectification theory and tripartite influence model constructs: The U.S. Body Project I. *Body image, 40*, 182–199. <https://doi.org/10.1016/j.bodyim.2021.12.012>

- Frederick, D. A., Schaefer, L. M., Hazzard, V. M., Rodgers, R. F., Tylka, T. L., Ong, L. Q., ... & Murray, S. B. (2022). Racial identity differences in pathways from sociocultural and objectification constructs to body satisfaction: The US Body Project I. *Body Image*, *41*, 140-155.
- Frederick, D. A., Tylka, T. L., Rodgers, R. F., Convertino, L., Pennesi, J. L., Parent, M. C., Brown, T. A., CompTE, E. J., Cook-Cottone, C. P., Crerand, C. E., Malcarne, V. L., Nagata, J. M., Perez, M., Pila, E., Schaefer, L. M., Thompson, J. K., & Murray, S. B. (2022a). Pathways from sociocultural and objectification constructs to body satisfaction among men: The U.S. Body Project I. *Body Image*, *41*, 84–96.
<https://doi.org/10.1016/j.bodyim.2022.01.018>
- Frederick, D. A., Tylka, T. L., Rodgers, R. F., Pennesi, J. L., Convertino, L., Parent, M. C., Brown, T. A., CompTE, E. J., Cook-Cottone, C. P., Crerand, C. E., Malcarne, V. L., Nagata, J. M., Perez, M., Pila, E., Schaefer, L. M., Thompson, J. K., & Murray, S. B. (2022b). Pathways from sociocultural and objectification constructs to body satisfaction among women: The U.S. Body Project I. *Body Image*, *41*, 195–208.
<https://doi.org/10.1016/j.bodyim.2022.02.001>
- Fredrickson, B. L., & Roberts, T. (1997). Objectification theory: Towards understanding women's lived experiences and mental health risks. *Psychology of Women Quarterly*, *21*, 173-206. <https://doi.org/10.1111/j.1471-6402.1997.tb00108.x>
- Freud, S. (1905/1953/2021). *Three essays on the theory of sexuality*. Manjula Publishing House.
- Freud, S. (1917/1957). Mourning and melancholia. In J. Strachey (Ed.), *The Standard Edition of the Complete Psychological Works of Sigmund Freud* (Vol. 14), Hogarth Press.

- Freud, S. (1958). The dynamics of transference. In *The Standard Edition of the Complete Psychological Works of Sigmund Freud, Volume XII (1911-1913): The Case of Schreber, Papers on Technique and Other Works* (pp. 97-108).
- Fuller-Tyszkiewicz M. (2019). Body image states in everyday life: Evidence from ecological momentary assessment methodology. *Body Image*, 31, 245–272.
<https://doi.org/10.1016/j.bodyim.2019.02.010>
- Fuller-Tyszkiewicz, M., Chhouk, J., McCann, L., Urbina, G., Vuo, H., Krug, I., . . . & Richardson, B. (2019). Appearance comparison and other appearance-related influences on body dissatisfaction in everyday life. *Body Image*, 28, 101-109.
<http://dx.doi.org/10.1016/j.bodyim.2019.01.002>
- Fuller-Tyszkiewicz, M., Dias, S., Krug, I., Richardson, B., & Fassnacht, D. (2018). Motive- and appearance awareness-based explanations for body(dis)satisfaction following exercise in daily life. *British Journal of Health Psychology*, 23, 982–999.
<http://dx.doi.org/10.1111/bjhp.1234>
- Fuller-Tyszkiewicz, M., McCabe, M., Skouteris, H., Richardson, B., Nihill, K., Watson, B., . . . & Solomon, D. (2015). Does body satisfaction influence self-esteem in adolescents' daily lives? An experience sampling study. *Journal of Adolescence*, 45, 11–19.
<http://dx.doi.org/10.1016/j.adolescence.2015.08.009>
- Funder, D. C. (2008). Persons, situations, and person-situation interactions. In O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (pp. 568–580). The Guilford Press.

- Funder, D. C., & Ozer, D. J. (2019). Evaluating effect size in psychological research: Sense and nonsense. *Advances in Methods and Practices in Psychological Science*, 2(2), 156–168. <https://doi.org/10.1177/2515245919847202>
- Furr R. M., & Funder D. (2018). Persons, situations, and person-situation interactions. In O. P. John & R. W. Robins (Eds.), *Handbook of personality: Theory and research* (4th ed.). Guilford.
- Furr, R. M., & Funder, D. C. (2021). Persons, situations, and person–situation interactions. In O. P. John & R. W. Robins (Eds.), *Handbook of personality: Theory and research* (pp. 667–685). The Guilford Press.
- Gard, M., Powell, D., & Tenorio, J. (Eds.). (2021). *Routledge handbook of critical obesity studies*. Routledge.
- Gebauer, J. E., Wagner, J., Sedikides, C., & Neberich, W. (2013). Agency-communion and self-esteem relations are moderated by culture, religiosity, age, and sex: Evidence for the “self centrality breeds self-enhancement” principle. *Journal of Personality*, 81, 261–275.
- Geldhof, G. H., Preacher, K. J., & Zyphur, M. J. (2014). Reliability estimation in a multilevel confirmatory factor analysis framework. *Psychological Methods*, 19, 72-91.
doi:10.1037/a0032138
- Gilbert, P. (Ed.). (2005). *Compassion: Conceptualisations, research and use in psychotherapy*. Routledge.
- Gilbert, P. (2010). An introduction to compassion focused therapy in cognitive behaviour therapy. *International Journal of Cognitive Therapy*, 3(2), 97-112.

- Goghari, V. M. (2022). Reimagining clinical psychology. *Canadian Psychology / Psychologie canadienne*, 63(2), 169–178. <https://doi.org/10.1037/cap0000328>
- Grant, C., & Osanloo, A. (2014). Understanding, selecting, and integrating a theoretical framework in dissertation research: Creating the blueprint for your “house”. *Administrative Issues Journal*, 4(2), 4. <https://dc.swosu.edu/aij/vol4/iss2/4>
- Greenberg, J. (1983). *Object relations in psychoanalytic theory*. Harvard University Press.
- Grossmann, I., Weststrate, N. M., Ardelt, M., Brienza, J. P., Dong, M., Ferrari, M., ... & Vervaeke, J. (2020). The science of wisdom in a polarized world: Knowns and unknowns. *Psychological Inquiry*, 31(2), 103–133.
- Growth from Knowledge (2015, May). Satisfaction with personal looks, Global GfK survey. https://www.gfk.com/fileadmin/user_upload/downloads/Global_Studies/Global-GfK-survey_Personal-Looks_2015.pdf
- Harter, S., Waters, P., & Whitesell, N. R. (1998). Relational self-worth: Differences in perceived worth as a person across interpersonal contexts among adolescents. *Child Development*, 69(3), 756-766. <https://doi.org/10.1111/j.1467-8624.1998.tb06241.x>
- Hartman, Y., & Darab, S. (2012). A call for slow scholarship: A case study on the intensification of academic life and its implications for pedagogy. *Review of Education, Pedagogy, and Cultural Studies*, 34(1-2), 49-60. <https://doi.org/10.1080/10714413.2012.643740>
- Hawks, S. R., Merrill, R. M., Madanat, H. N., Miyagawa, T., Suwanteerangkul, J., Guarin, C. & M., Shaofang, C. (2003). Intuitive eating and the nutrition transition in Asia. *Asia Pacific Journal of Clinical Nutrition*, 13, 194-203.
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Interpersonal Relations and Group Processes*, 52(3), 511-524.

- Hazzard, V. M., Schaefer, L. M., Kevin Thompson, J., Murray, S. B., & Frederick, D. A. (2022). Measurement invariance of body image measures by age, gender, sexual orientation, race, weight status, and age: The U.S. Body Project I. *Body Image, 41*, 97–108. <https://doi.org/10.1016/j.bodyim.2022.01.015>
- Heinberg, L. J., Thompson, J. K., & Stormer, S. (1995). Development and validation of the sociocultural attitudes towards appearance questionnaire. *International Journal of Eating Disorders, 17*, 81–89.
- Hewitt, P. L., Flett, G. L., & Mikail, S. F. (2017). *Perfectionism: A relational approach to conceptualization, assessment, and treatment*. The Guilford Press.
- Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review, 94*, 391–340.
- Higgins E. T. (1997). Beyond pleasure and pain. *American Psychologist, 52*, 1280–1300.
- Hinkley, K., & Andersen, S. M. (1996). The working self-concept in transference: Significant-other activation and self-change. *Journal of Personality and Social Psychology, 71*, 1279– 1295.
- Homan, K. J., & Cavanaugh, B. N. (2013). Perceived relationship with God fosters positive body image in college women. *Journal of Health Psychology, 18*(12), 1529-1539.
- Hopwood, C. J. (2018). Interpersonal dynamics in personality and personality disorders. *European Journal of Personality, 32*(5), 499–524. <https://doi.org/10.1002/per.2155>.
- Hopwood, C. J., Pincus, A. L., & Wright, A. G. C. (2019). The interpersonal situation: Integrating personality assessment, case formulation, and intervention. In D. B. Samuel & D. R. Lynam (Eds.), *Using basic personality research to inform personality pathology* (pp. 94–121). Oxford University Press.

- Hopwood, C. J., Wright, A. G., Ansell, E. B., & Pincus, A. L. (2013). The interpersonal core of personality pathology. *Journal of personality disorders*, 27(3), 270.
- Horberg, E. J., & Chen, S. (2010). Significant others and contingencies of self-worth: Activation and consequences of relationship-specific contingencies of self-worth. *Journal of Personality and Social Psychology*, 98, 77–91. <https://doi.org/10.1037/a0016428>
- Horowitz, L. M., & Strack, S. (Eds.). (2010). *Handbook of interpersonal psychology: Theory, research, assessment, and therapeutic interventions*. John Wiley & Sons.
- Houben, M., Van Den Noortgate, W., & Kuppens, P. (2015). The relation between short-term emotion dynamics and psychological well-being: A meta-analysis. *Psychological Bulletin*, 141(4), 901–930. <https://doi.org/10.1037/a0038822>
- Hox, J. (2010). *Multilevel analysis: Techniques and applications*. Lawrence Erlbaum Associates, Inc.
- Iwasa H., Masui Y., Gondo Y., Inagaki H., Kawaai C., & Suzuki T. (2008). Personality and all-cause mortality among older adults dwelling in a Japanese community: A five-year population-based prospective cohort study. *The American Journal of Geriatric Psychiatry*, 16, 399–405.
- James, W. (1890). The consciousness of self. In W. James, *The principles of psychology*, (Vol. 1, pp. 291–401). Henry Holt and Co. <https://doi.org/10.1037/10538-010>
- Jamieson, M. K., Govaart, G. H., & Pownall, M. (2022). Reflexivity in quantitative research: A rationale and beginner's guide. *Social and Personality Psychology Compass*, e12735.
- Jankowski, G., Braun, V., & Clarke, C. (2017). Reflecting on qualitative research, feminist methodologies and feminist psychology: In conversation with Virginia Braun and Victoria Clarke. *Psychology of Women Section Review*, 19(1), 43-55.

- Jayawickreme, E., Fleeson, W., Beck, E. D., Baumert, A., & Adler, J. M. (2021). Personality dynamics. *Personality Science*, 2, 1-18. <https://doi.org/10.5964/ps.6179>
- Johnstone, L., & Boyle, M. (2018). The power threat meaning framework: An alternative nondiagnostic conceptual system. *Journal of Humanistic Psychology*, <https://doi.org/10.1177/0022167818793289>
- Johnston-Robledo, I., & Chrisler, J. C. (2018). *Woman's embodied self: Feminist perspectives on identity and image*. American Psychological Association.
- Jones, M. D., Crowther, J. H., & Ciesla, J. A. (2014). A naturalistic study of fat talk and its behavioural and affective consequences. *Body Image*, 11, 337–345. <http://dx.doi.org/10.1016/j.bodyim.2014.05.007>
- Jourard, S. M. (1963). *Personal adjustment: An approach through the study of healthy personality* (2nd ed.). Macmillan.
- Kalmijn, W., & Veenhoven, R. (2005). Measuring inequality of happiness in nations: In search for proper statistics. *Journal of Happiness Studies: An Interdisciplinary Forum on Subjective Well-Being*, 6(4), 357–396. <https://doi.org/10.1007/s10902-005-8855-7>
- Kalokerinos, K. E., Murphy, S. C., Koval, P., Bailen, N. H., Crombez, G., Hollenstein, T., Gleeson, J., Thompson, R. J., Van Ryckeghem, D. M. L., Kuppens, P., & Bastian, B. (2020a). Neuroticism may not reflect emotional variability. *PNAS*, 117(17), 9270-9276. <https://doi.org/10.1073/pnas.1919934117>
- Kalokerinos, K. E., Murphy, S. C., Koval, P., Mestdagh, M., Bastian, B., & Kuppens, P. (2020b). Reply to Wenzel and Kubiak: Neuroticism is best defined by mean levels of negative emotion, not emotional variability. *PNAS*, 117(52), 32859-32860. <https://doi.org/10.1073/pnas.2020017117>

- Kelly, A. C., Miller, K. E., & Stephen, E. (2016). The benefits of being self-compassionate on days when interactions with body-focused others are frequent. *Body Image, 19*, 195–203. <https://doi.org/10.1016/j.bodyim.2016.10.005>
- Kenrick, D. T., & Funder, D. C. (1988). Profiting from controversy: Lessons from the person-situation debate. *American Psychologist, 43*(1), 23–34. <https://doi.org/10.1037/0003-066X.43.1.23>
- Kernis, M. H. (2005). Measuring self-esteem in context: The importance of stability of self-esteem in psychological functioning. *Journal of Personality, 73*, 1569-1605. <https://doi.org/10.1111/j.1467-6494.2005.00359.x>
- Kuznetsova, A., Brockhoff, P. B., & Christensen, R. H. B. (2017). lmerTest package: Tests in the linear mixed effects models. *Journal of Statistical Software, 82*, 1-26. [doi:10.18637/jss.v082.il3](https://doi.org/10.18637/jss.v082.il3)
- Kiesler, D. J. (1996). *Contemporary interpersonal theory and research*. Wiley.
- Klohnen, E. C., Weller, J. A., Luo, S., & Choe, M. (2005). Organization and predictive power of general and relationship-specific attachment models: One for all, and all for one? *Personality & Social Psychology Bulletin, 31*(12), 1665–1682. <https://doi.org/10.1177/0146167205278307>
- Kohut, H. (2013). *The analysis of the self: A systematic approach to the psychoanalytic treatment of narcissistic personality disorders*. University Of Chicago Press. (Original work published 1971).
- Kraus, M. W., & Chen, S. (2009). Striving to be known by significant others: Automatic activation of self-verification goals in relationship contexts. *Journal of Personality and Social Psychology, 97*, 58–73. <https://doi.org/10.1037/a0014687>

- Kraus, M. W., Chen, S., Lee, V. A., & Straus, L. D. (2010). Transference occurs across group boundaries. *Journal of Experimental Social Psychology, 46*, 1067–1073.
- Kuppens, P., Dejonckheere, E., Kalokerinos, E. K., & Koval, P. (2022). Some recommendations on the use of daily life methods in affective science. *Affective Science, 3*, 505-515.
<https://doi.org/10.1007/s42761-022-00101-0>
- Laboe, A. A., Hocking, J. E., & Gondoli, D. M. (2022). Body dissatisfaction and disordered eating within the mother-daughter dyad: An actor-partner interdependence approach. *Body Image, 43*, 25–33. <https://doi.org/10.1016/j.bodyim.2022.08.004>
- LaFrance, M. N., & Wigginton, B. (2019). Doing critical feminist research: A Feminism & Psychology reader. *Feminism & Psychology, 29*(4), 534-552.
- LaMarre, A., Levine, M. P., Holmes, S., & Malson, H. (2022). An open invitation to productive conversations about feminism and the spectrum of eating disorders (part 1): basic principles of feminist approaches. *Journal of Eating Disorders, 10*(1), 54.
<https://doi.org/10.1186/s40337-022-00532-x>
- LaMarre, A., & Rice, C. (2015). Normal eating is counter-cultural: Embodied experiences of eating disorder recovery. *Journal of Community & Applied Social Psychology, 26*(2): 136-149. <https://doi.org/10.1002/casp.2240>
- Lankci, N., Siddique, J., Schneider, J. A., Kanaya, A. M., Fujimoto, K., Dave, S. S., Puri-Taneja, A., & Kandula, N. R. (2018). Social network body size is associated with body size norms of south Asian adults. *Obesity Medicine, 11*, 25-30.
<https://doi.org/10.1016/j.obmed.2018.06.001>
- Lapate, R. C., & Heller, A. S. (2020). Context matters for affective chronometry. *Nature Human Behaviour, 4*(7), 688-689. <https://doi.org/10.1038/s41562-020-0860-7>

- Lattimore, P., & Hutchinson, R. (2010). Perceived calorie intake and state body-image satisfaction in women attempting weight loss: A preliminary investigation. *Body Image*, 7(1), 15–21. <http://dx.doi.org/10.1016/j.bodyim.2009.08.002>
- Leahey, T. M., & Crowther, J. H. (2008). An ecological momentary assessment of comparison target as a moderator of the effects of appearance-focused social comparisons. *Body Image*, 5, 307–311. <http://dx.doi.org/10.1016/j.bodyim.2008.03.002>
- Leahey, T. M., Crowther, J. H., & Ciesla, J. A. (2011). An ecological momentary assessment of the effects of weight and shape social comparisons on women with eating pathology, high body dissatisfaction, and low body dissatisfaction. *Behaviour Therapy*, 42(2), 197-210.
- Leahey, T. M., Crowther, J. H., & Mickelson, K. D. (2007). The frequency, nature, and effects of naturally occurring appearance-focused social comparisons. *Behaviour Therapy*, 38, 132–143. <http://dx.doi.org/10.1016/j.beth.2006.06.004>
- Leary, T. (1957). *Interpersonal diagnosis of personality*. John Wiley & Sons
- Leary, M. R., & Baumeister, R. F. (2000). The nature and function of self-esteem: Sociometer theory. In *Advances in Experimental Social Psychology* (Vol. 32, pp. 1-62). Academic Press.
- Leary, M. R., & Tangney, J. P. (Eds.). (2012). The self as an organizing construct in the behavioural and social sciences. In M. R. Leary & J. P. Tangney (Eds.), *Handbook of self and identity* (pp. 1–18). The Guilford Press.
- Levenson, H. (1995). *Time-limited Dynamic Psychotherapy: A guide to clinical practice*. BasicBooks.
- Levenson, H. (2010). *Brief dynamic therapy*. American Psychological Association.
- Levenson, H. (2017). *Brief dynamic therapy* (2nd ed.). American Psychological Association.

- Linardon, J., Tylka, T. L., & Fuller-Tyszkiewicz, M. (2021). Intuitive eating and its psychological correlates: A meta-analysis. *International Journal of Eating Disorders*, 54(7), 1073-1098. <https://doi.org/10.1002/eat.23509>
- Locke, K. D. (2000). Circumplex scales of interpersonal values: Reliability, validity, and applicability to interpersonal problems and personality disorders. *Journal of Personality Assessment*, 75, 249–267.
- Longobardi, C., Badenes-Ribera, L., & Fabris, M. A. (2022). Adverse childhood experiences and body dysmorphic symptoms: A meta-analysis. *Body Image*, 40, 267–284. <https://doi.org/10.1016/j.bodyim.2022.01.003>
- Lowy, A. S., Rodgers, R. F., Franko, D. L., Pluhar, E., & Webb, J. B. (2021). Body image and internalization of appearance ideals in Black women: An update and call for culturally-sensitive research. *Body Image*, 39, 313-327.
- Luyten, P., Mayes, L. C., Blatt, S. J., Target, M., & Fonagy, P. (2017). Theoretical and empirical foundations of contemporary psychodynamic approaches. In P. Luyten, L. C. Mayes, S. J. Blatt, M. Target, P. Fonagy, (Eds.), *Handbook of psychodynamic approaches to psychopathology* (pp. 3–26). The Guilford Press.
- Malterud, K., Siersma, V. D., & Guassora, A. D. (2016). Sample size in qualitative interview studies: Guided by information power. *Qualitative Health Research*, 26(13), 1753–1760. <https://doi.org/10.1177/1049732315617444>
- Marin, A., & Hampton, K. N. (2007). Simplifying the personal network name generator: alternatives to traditional multiple and single name generators. *Field Methods*, 19, 163-193. doi:10.1177/1525822X06298588

- Markus, H., & Cross, S. (1990). The interpersonal self. In L. A. Pervin (Ed.), *Handbook of personality: Theory and research* (pp. 576–608). The Guilford Press.
- McAdams, D. P. (1985). *Power, intimacy, and the life story: Personological inquiries into identity*. Dorsey Press.
- McAdams, D. P. (2015). *The art and science of personality development*. Guilford Press.
- McAdams, D. P. (2021). Narrative identity and the life story. In O. P. John & R. W. Robins (Eds.), *Handbook of personality: Theory and research* (pp. 122–141). The Guilford Press.
- McBride, H. L. (2018). Embodiment and body image. In H. L. McBride & J. L. Kwee (Eds.), *Embodiment and eating disorders* (pp. 1-11). Routledge.
- McCabe, K. O., & Fleeson, W. (2012). What is extraversion for? Integrating trait and motivational perspectives and identifying the purpose of extraversion. *Psychological Science*, 23(12), 1498–1505. <https://doi.org/10.1177/0956797612444904>
- McCabe, K. O., & Fleeson, W. (2016). Are traits useful? Explaining trait manifestations as tools in the pursuit of goals. *Journal of Personality and Social Psychology*, 110(2), 287–301. <https://doi.org/10.1037/a0039490>
- McCarty, C., Killworth, P., & Rennell, J. (2007). Impact of methods for reducing respondent burden on personal network structural measures. *Social Networks*, 29, 300-315. <https://doi.org/10.1016/j.socnet.2006.12.005>
- McKinley, N. M. (2002). Feminist perspectives and objectified body consciousness. In T. F. Cash & T. Pruzinsky (Eds.), *Body image: A handbook of theory, practice, and clinical practice* (pp. 55–64). The Guilford Press

- McKinley, N. M., & Hyde, J. S. (1996). The Objectified Body Consciousness Scale: Development and validation. *Psychology of Women Quarterly*, 20(2), 181-215.
<https://doi.org/10.1111/j.1471-6402.1996.tb00467.x>
- McNeish, D. (2018). Thanks coefficient alpha, we'll take it from here. *Psychological Methods*, 23(3), 412–433. <https://doi.org/10.1037/met0000144>
- McWilliams, N. (2017). Integrative research for integrative practice: A plea for respectful collaboration across clinician and researcher roles. *Journal of Psychotherapy Integration*, 27(3), 283–295. <https://doi.org/10.1037/int0000054>
- McWilliams, N. (2020). *Psychoanalytic diagnosis: Understanding personality structure in the clinical process*. (2nd ed.). Guilford Press.
- Mead, G.H. (1934). *Mind, Self, and Society from the Standpoint of a Social Behaviourist*. University of Chicago Press.
- Melnyk, S. E., Cash, T. F., & Janda, L. H. (2004). Body image ups and downs: Prediction of intra-individual level and variability of women's daily body image experiences. *Body Image*, 1(3), 225-235. <https://doi.org/10.1016/j.bodyim.2004.03.003>
- Menzel, J. E., Krawczyk, R., & Thompson, J. K. (2011). Attitudinal assessment of body image for adolescents and adults. In T. F. Cash & L. Smolak (Eds.), *Body image: A handbook of science, practice, and prevention* (pp. 154-169). Guilford Press.
- Merleau-Ponty, M. (1962). *Phenomenology of perception*. Humanistic Press.
- Mestdagh, M., & Dejonckheere, E. (2021). Ambulatory assessment in psychopathology research: Current achievements and future directions. *Current Opinion in Psychology*, 41, 1-8.
<https://doi.org/10.1016/j.copsyc.2021.01.004>

- Mestdagh, M., Pe, M., Pestman, W., Verdonck, S., Kuppens, P., & Tuerlinckx, F. (2018). Sidelineing the mean: The relative variability index as a generic mean-corrected variability measure for bounded variables. *Psychological Methods*, 23, 690-707.
<https://doi.org/10.1037/met0000153>
- Mikulincer, M., & Shaver, P. R. (2003). The attachment behavioural system in adulthood: Activation, psychodynamics, and interpersonal processes. In M. P. Zanna (Ed.), *Advances in experimental social psychology*, Vol. 35, (pp. 53–152). Elsevier Academic Press. [https://doi.org/10.1016/S0065-2601\(03\)01002-5](https://doi.org/10.1016/S0065-2601(03)01002-5)
- Mikulincer, M., & Shaver, P. R., (2006). Mental representations of attachment security: Theoretical foundation for a positive social psychology. In M. W. Baldwin (Ed.), *Interpersonal Cognition* (pp. 233–266). The Guilford Press.
- Mikulincer, M., & Shaver, P. R. (2010). *Attachment in adulthood: Structure, dynamics, and change*. Guilford Publications.
- Mikulincer, M., & Shaver, P. R. (2017). Attachment-related contributions to the study of psychopathology. In P. Luyten, L. C. Mayes, S. J. Blatt, M. Target, P. Fonagy, (Eds.), *Handbook of psychodynamic approaches to psychopathology* (pp. 27–46). The Guilford Press.
- Miller, K. E., Kelly, A. C., & Kraus, G. E. (2022). Adaptive body image can be contagious: An examination of college women facing situational body image threats. *Body Image*, 42, 222–236. <https://doi.org/10.1016/j.bodyim.2022.06.008>

- Miller, K.E., Kelly, A. C., & Stephen, E. (2019). Exposure to body focused and non-body focused others over a week: A preliminary investigation of their unique contributions to college women's eating and body image. *Body Image*, 28, 48-52.
- Mills, J., Fuller-Tyszkiewicz, M., & Holmes, M. (2014). State body dissatisfaction and social interactions: An experience sampling study. *Psychology of Women Quarterly*, 38, 551–562. <http://dx.doi.org/10.1177/0361684314521139>
- Mischel, W., & Shoda, Y. (1995). A cognitive-affective system theory of personality: Reconceptualizing situations, dispositions, dynamics, and invariance in personality structure. *Psychological Review*, 102(2), 246–268.
<https://doi.org/10.1037/0033-295X.102.2.246>
- Moradi, B., & Huang, Y.-P. (2008). Objectification theory and psychology of women: A decade of advances and future directions. *Psychology of Women Quarterly*, 32(4), 377–398.
<https://doi.org/10.1111/j.1471-6402.2008.00452.x>
- Morasso, P., Casadio, M., Mohan, V., Rea, F., & Zenzeri, J. (2015). Revisiting the body-schema concept in the context of whole-body postural-focal dynamics. *Frontiers in Human Neuroscience*, 9, 83. <https://doi.org/10.3389/fnhum.2015.00083>
- Möttus, R., Wood, D., Condon, D. M., Back, M. D., Baumert, A., Costantini, G., Epskamp, S., Greiff, S., Johnson, W., Lukaszewski, A., Murray, A., Revelle, W., Wright, A. G. C., Yarkoni, T., Ziegler, M., & Zimmermann, J. (2020). Descriptive, predictive and explanatory personality research: Different goals, different approaches, but a shared need to move beyond the big few traits. *European Journal of Personality*, 34(6), 1175–1201.

- Muth, J. L., & Cash, T. F. (1997). Body-image attitudes: What difference does gender make? *Journal of Applied Social Psychology*, 27, 1438–1452.
<https://doi.org/10.1111/j.1559-1816.1997.tb01607.x>
- Myers, T. A., & Crowther, J. H. (2009). Social comparison as a predictor of body dissatisfaction: A meta-analytic review. *Journal of Abnormal Psychology*, 118, 683–98.
doi:10.1037/a0016763.
- Myers, T. A., Ridolfi, D. R., Crowther, J. H., & Ciesla, J. A. (2012). The impact of appearance-focused social comparisons on body image disturbance in the naturalistic environment: The roles of thin-ideal internalization and feminist beliefs. *Body Image*, 9, 342–351.
<http://dx.doi.org/10.1016/j.bodyim.2012.03.005>
- Nezlek J. B. (1999). Body image and day-to-day social interaction. *Journal of Personality*, 67(5), 793–817. <https://doi.org/10.1111/1467-6494.00073>
- Nezlek, J. B. (2012a). Diary methods for social and personality psychology. In J. B. Nezlek (Ed.) *The SAGE Library in Social and Personality Psychology Methods*. Sage Publications.
- Nezlek, J. B. (2012b). Multilevel modeling analyses of diary-style data. In M. R. Mehl & T. S. Conner (Eds.), *Handbook of research methods for studying daily life* (pp. 357-383). The Guilford Press.
- Noftle E. E., & Robins R. W. (2007). Personality predictors of academic outcomes: Big Five correlates of GPA and SAT scores. *Journal of Personality and Social Psychology*, 93, 116–130.
- O'Dea, J. A. (2012). Body image and self-esteem. In T. F. Cash (Ed.), *Encyclopedia of body image and human appearance* (pp. 141–147). Elsevier Academic Press.

- Oh, K. H., Wisemen, M. C., Hendrickson, J., Phillips, J. C., & Hayden, E. W. (2012). Testing the acceptance model of intuitive eating with college women adolescents. *Psychology of Women Quarterly*, 36, 88-98. doi:10.1177/0361684311433282
- Ong, C. W., Hayes, S. C., & Hofmann, S. G. (2022). A process-based approach to cognitive behavioural therapy: A theory-based case illustration. *Frontiers in Psychology*, 13, 1002849. <https://doi.org/10.3389/fpsyg.2022.1002849>
- Orbach, S. (1978/1988/2006). *Fat is a feminist issue*. Arrow Books.
- Overall, N. C., Fletcher, G. J. O., & Friesen, M. D. (2003). Mapping the intimate relationship mind: Comparisons between three models of attachment representations. *Personality and Social Psychology Bulletin*, 29(12), 1479–1493. <https://doi.org/10.1177/0146167203251519>
- Ozer D. J., & Benet–Martinez V. (2006). Personality and the prediction of consequential outcomes. *Annual Review of Psychology*, 57, 401–421.
- Pasupathi, M., & Adler, J. M. (2021). Narrative, identity, and the life story: Structural and process approaches. In *The handbook of personality dynamics and processes* (pp. 387-403). Academic Press.
- Pausé, C., & Taylor, S. R. (Eds.). (2021). *The Routledge international handbook of fat studies*. Routledge.
- Paxton, S. J., Schutz, H. K., Wertheim, E. H., & Muir, S. L. (1999). Friendship clique and peer influences on body image concerns, dietary restraint, extreme weight-loss behaviours, and binge eating in adolescent girls. *Journal of Abnormal Psychology*, 108, 255-266. <https://doi.org/10.1037/0021-843X.108.2.255>
- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Sage.

- Peplau, L. A., Frederick, D. A., Yee, C., Maisel, N., Lever, J., & Ghavami, N. (2009). Body image satisfaction in heterosexual, gay, and lesbian adults. *Archives of sexual behaviour*, 38(5), 713–725. <https://doi.org/10.1007/s10508-008-9378-1>
- Perry, B. L., Pescosolido, B. A., & Borgatti, S. P. (2018). *Egocentric network analysis: Foundations, methods, & models*. Cambridge University Press.
- Pescosolido, B. A., Gardner, C. B., & Lubell, K. M. (1998). How people get into mental health services: Stories of choice, coercion, and ‘muddling through’ from ‘first-timers’. *Social Science and Medicine*, 46, 275-286. [https://doi.org/10.1016/S0277-9536\(97\)00160-3](https://doi.org/10.1016/S0277-9536(97)00160-3)
- Peugh, J. L. (2010). A practical guide to multilevel modeling. *Journal of School Psychology*, 48, 85-112. <https://doi.org/10.1016/j.jsp.2009.09.002>
- Pickens, C., & Braun, V. (2018). “Stroppy Bitches Who Just Need to Learn How to Settle”? Young single women and norms of femininity and heterosexuality. *Sex Roles*, 79, 431–448. <https://doi.org/10.1007/s11199-017-0881-5>
- Pierce, T., & Lydon, J. E. (2001). Global and specific relational models in the experience of social interactions. *Journal of Personality and Social Psychology*, 80, 613–631. <https://doi.org/10.1037/0022-3514.80.4.613>
- Piran, N. (2002). Ways of knowing in and through the body: Diverse perspectives on embodiment. In S. Abbey (Ed.), *Embodiment: A mosaic of inquiries in the area of body weight and shape preoccupation* (pp. 211-214). Soleil Publishing.
- Piran, N. (2018). *Journeys of embodiment at the intersection of body and culture*. *The developmental theory of embodiment*. Academic Press.

- Piran, N. (2019a). The experiences of embodiment construct: Reflecting the quality of embodied experiences. In T. L. Tylka & N. Piran (Eds.), *Handbook of positive body image and embodiment: Constructs, protective factors, and interventions* (pp. 11–21). Oxford University Press.
- Piran, N. (2019b). Feminist and social-justice informed approaches toward the enhancement of positive embodiment. In T. L. Tylka & N. Piran (Eds.), *Handbook of positive body image and embodiment* (pp. 385-398). Oxford University Press.
- Piran, N., & Teall, T. (2012). The developmental theory of embodiment. In G. McVey, H. B. Ferguson, M. Levine, & N. Piran (Eds.), *Improving the prevention of eating disorders: Collaborative research, advocacy, and policy change* (pp. 169-198). Wilfrid Laurier Press.
- Prnjak, K., & Murray, S. B. (2021). The need for precision research on muscle dysmorphia: Special issue call for research on clinically diagnosed samples. *Body Image*, 39, iii–iv. <https://doi.org/10.1016/j.bodyim.2021.08.005>
- R Core Team (2018). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing. <http://www.R-project.org/>.
- Rauthmann, J. F. (Ed.). (2021). *The handbook of personality dynamics and processes*. Academic Press.
- Reavey, P., & Johnson, K. (2011). Visual approaches: Using and interpreting images. In C. Willig & W. Stainton-Rogers (Eds.), *The SAGE Handbook of Qualitative Research in Psychology*. SAGE Publications Ltd. <https://doi.org/10.4135/9781848607927>

- Reis, H. T., & Downey, G. (1999). Social cognition in relationships: Building essential bridges between two literatures. *Social Cognition*, 17(2), 97–117.
<https://doi.org/10.1521/soco.1999.17.2.97>
- Reznik, I., & Andersen, S. M. (2004). *Becoming the dreaded self: Diminished self-worth with positive significant others in transference*. Unpublished manuscript. New York University.
- Reznik, I., & Andersen, S. M. (2007). Agitation and despair in relation to parents: Activating emotional suffering in transference. *European Journal of Personality*, 21, 281–301.
- Richard, F. D., Bond, C. F., Jr., & Stokes-Zoota, J. J. (2003). One hundred years of social psychology quantitatively described. *Review of General Psychology*, 7(4), 331–363.
<https://doi.org/10.1037/1089-2680.7.4.331>
- Rice, C., Pendleton Jimenez, K., Harrison, E., Robinson, M., Rinaldi, J., LaMarre, A., & Andrew, J. (2020). Bodies at the intersections: Refiguring intersectionality through queer women's complex embodiments. *Signs: Journal of Women in Culture and Society*, 46(1), 177-200. <https://doi.org/10.1086/709219>
- Rice, C., Riley, S., LaMarre, A., & Bailey, K. A. (2021). What a body can do: Rethinking body functionality through a feminist materialist disability lens. *Body image*, 38, 95–105.
<https://doi.org/10.1016/j.bodyim.2021.03.014>
- Rice, C., & Rinaldi, J. (Eds.). (2019). *Thickening fat: Fat bodies, intersectionality, and social justice*. Routledge.

- Ridolfi, D. R., Myers, T. A., Crowther, J. H., & Ciesla, J. A. (2011). Do appearance focused cognitive distortions moderate the relationship between social comparisons to peers and media images and body image disturbance? *Sex Roles*, 65, 491–505.
<http://dx.doi.org/10.1007/s11199-011-9961-0>
- Riessman, C. K. (2008). *Narrative methods for the human sciences*. Sage Publications, Inc.
- Riley, S. (2018). Postfeminist digital cultures: Femininity, social media and self-representation Amy Shields Dobson. *Feminism & Psychology*, 28(2), 302–306.
<https://doi.org/10.1177/0959353517705401>
- Riley, S., Evans, A., Anderson, E., & Robson, M. (2019). The gendered nature of self-help. *Feminism & Psychology*, 29(1), 3-18.
- Riley, S., Evan, A., & Robson, M. (2023). *Postfeminism and body image*. Routledge.
- Rinaldi, J., Rice, C., & Friedman, M. (2019). Introduction. In M. Friedman, C. Rice, & J. Rinaldi, (Eds.). (2019). *Thickening fat: Fat bodies, intersectionality, and social justice*. Routledge.
- Rinaldi, J., Rice, C., LaMarre, A., Pendleton Jiménez, K., Harrison, E., Friedman, M., ... & Tidgwell, T. (2016). *Through thick and thin: Storying queer women's experiences of idealised body images and expected body management practices*. The British Psychological Society.
- Roberts, S. B., & Dunbar, R. I. (2015). Managing relationship decay: Network, gender, and contextual effects. *Human Nature*, 26, 426- 450.

- Roberts B. W., Kuncel N. R., Shiner R., Caspi A., & Goldberg L. R. (2007). The power of personality: The comparative validity of personality traits, socioeconomic status, and cognitive ability for predicting important life outcomes. *Perspectives on Psychological Science*, 2, 313–345.
- Rogers, A., Fuller-Tyszkiewicz, M., Lewis, V., Krug, I., & Richardson, B. (2017). A person-by-situation account of why some people more frequently engage in upward appearance comparison behaviours in everyday life. *Behaviour Therapy*, 48(1), 19-28.
- Rogers, C. R. (1961). *On becoming a person*. Houghton Mifflin.
- Rounsaville, B. J., Carroll, K. M., & Onken, L. S. (2001). A stage model of behavioural therapies research: Getting started and moving on from Stage 1. *Clinical Psychology*, 8, 133-142.
<https://doi.org/10.1093/clipsy.8.2.133>
- Rudiger, J. A., Cash, T. F., Roehrig, M., & Thompson, J.K. (2007). Day-to-day body-image states: Prospective predictors of intra-individual level and variability. *Body Image*, 4(1), 1-9. <https://doi.org/10.1016/j.bodyim.2006.11.004>
- Sack, M., Boroske-Leiner, K., & Lahmann, C. (2010). Association of nonsexual and sexual traumatizations with body image and psychosomatic symptoms in psychosomatic outpatients. *General Hospital Psychiatry*, 32(3), 315–320.
<https://doi.org/10.1016/j.genhosppsych.2010.01.002>
- Sadler, P., Ethier, N., & Woody, E. (2011). Interpersonal complementarity. In L. M. Horowitz & S. Strack (Eds.), *Handbook of interpersonal psychology: Theory, research, assessment, and therapeutic interventions* (pp. 123–142). John Wiley & Sons, Inc.

- Saita, E., Ferraris, G., Acquati, C., Molgora, S., Sorge, A., Valenti, F., Grassi, M. M., & Vagnini, D. (2022). Dyadic profiles of couples coping with body image concerns after breast cancer: preliminary results of a cluster analysis. *Frontiers in Psychology, 13*, 869905. <https://doi.org/10.3389/fpsyg.2022.869905>
- Salk, R. H., & Engeln-Maddox, R. (2012). Fat talk among college women is both contagious and harmful. *Sex Roles, 66*, 636–645. <http://dx.doi.org/10.1007/s11199-011-0050-1>
- Sandoz, E. K., Wilson, K. G., Merwin, R. M., & Kate Kellum, K. (2013). Assessment of body image flexibility: The Body Image-Acceptance and Action Questionnaire. *Journal of Contextual Behavioural Science, 2*(1-2), 39–48. <https://doi.org/10.1016/j.jcbs.2013.03.002>
- Saules, K. K., Collings, A. S., Wiedemann, A. A., & Fowler, S. L. (2009). The relationship of body image to body mass index and binge eating: The role of cross-situational body image dissatisfaction versus situational reactivity. *Psychological Reports, 104*, 909-921. <https://doi.org/10.2466/PRO.104.3.909-921>
- Schaefer, L. M., Burke, N. L., Thompson, J. K., Dedrick, R. F., Heinberg, L. J., Calogero, R. M., Bardone-Cone, A. M., Higgins, M. K., Frederick, D. A., Kelly, M., Anderson, D. A., Schaumberg, K., Nerini, A., Stefanile, C., Dittmar, H., Clark, E., Adams, Z., Macwana, S., Klump, K. L., & Swami, V. (2015). Development and validation of the Sociocultural Attitudes Towards Appearance Questionnaire-4 (SATAQ-4). *Psychological Assessment, 27*(1), 54–67. <https://doi.org/10.1037/a0037917>

- Schaefer, L. M., Harriger, J. A., Heinberg, L. J., Soderberg, T., & Kevin Thompson, J. (2017). Development and validation of the sociocultural attitudes towards appearance questionnaire-4-revised (SATAQ-4R). *The International journal of eating disorders*, 50(2), 104–117. <https://doi.org/10.1002/eat.22590>
- Scheffers, M., Hoek, M., Bosscher, R. J., van Duijn, M. A., Schoevers, R. A., & van Busschbach, J. T. (2017). Negative body experience in women with early childhood trauma: associations with trauma severity and dissociation. *European Journal of Psychotraumatology*, 8(1), 1322892.
- Schilder, P. (1935/1950). *The image and appearance of the human body*. International Universities Press, Inc.
- Scott, W. D., Penningroth, S. L., Paup, S., Li, X., Adams, D., & Mallory, B. (2022). The Relational Self-Schema Measure: Assessing psychological needs in multiple self-with-other representations. *Journal of Personality Assessment*, 104(1), 74-85.
- Seidel, M., Petermann, J., Diestel, S., Ritschel, F., Boehm, I., King, J. A., . . . & Ehrlich, S. (2016). A naturalistic examination of negative affect and disorder-related rumination in anorexia nervosa. *European Child and Adolescent Psychiatry*, 25, 1207–1216. <http://dx.doi.org/10.1007/s00787-016-0844-3>
- Seidel, M., King, J. A., Ritschel, F., Boehm, I., Geisler, D., Bernardoni, F., . . . & Ehrlich, S. (2018). The real-life costs of emotion regulation in anorexia nervosa: A combined ecological momentary assessment and fMRI study. *Translational Psychiatry*, 8, 28. <http://dx.doi.org/10.1038/s41398-017-0004-7>
- Shannon, A., & Mills, J. S. (2015). Correlates, causes, and consequences of fat talk: A review. *Body Image*, 15, 158–172. <https://doi.org/10.1016/j.bodyim.2015.09.003>

- Shaver, P. R., & Mikulincer, M. (2002). Attachment-related psychodynamics. *Attachment & Human Development*, 4(2), 133-161.
- Shontz, F. C. (1969). *Perceptual and cognitive aspects of body experience*. Academic Press.
- Shroff, H., & Thompson, J. K. (2006). The tripartite influence model of body image and eating disturbance: A replication with adolescent girls. *Body image*, 3(1), 17–23.
<https://doi.org/10.1016/j.bodyim.2005.10.004>
- Siegel, D. J., & Solomon, M. F. (Eds.). (2003). *Healing trauma: Attachment, mind, body and brain (Norton Series on Interpersonal Neurobiology)*. WW Norton & Company.
- Simmons, J. P., Nelson, L. D., & Simonsohn, U. (2011). False-positive psychology: Undisclosed flexibility in data collection and analysis allows presenting anything as significant. *Psychological Science*, 22(11), 1359-1366. <https://doi.org/10.1177/0956797611417632>
- Simonsohn, U., Simmons, J. P., & Nelson, L. D. (2020). Specification curve analysis. *Nature Human Behaviour*, 4(11), 1208-1214. <https://doi.org/10.1038/s41562-020-0912-z>
- Smolak, L., & Murnen, S. K. (2004). A feminist approach to eating. In J. K. Thompson (Ed.), *Handbook of eating disorders and obesity*. (pp. 590–605). John Wiley & Sons, Inc.
- Skodol, A. E. (2005). The borderline diagnosis: Concepts, criteria, and controversies. In J. G. Gunderson & P. D. Hoffman (Eds.), *Understanding and treating borderline personality disorder: A guide for professionals and families* (pp. 3–19). American Psychiatric Publishing, Inc..
- Skodol, A. E. (2012). Diagnosis and DSM-5: Work in progress. In T. A. Widiger (Ed.), *The Oxford handbook of personality disorders* (pp. 35–57). Oxford University Press.
<https://doi.org/10.1093/oxfordhb/9780199735013.013.0003>

- Steege, S., Tuerlinckx, F., Gelman, F., & Vanpaemel, W. (2016). Increasing transparency through a multiverse analysis. *Perspectives on Psychological Science*, 11(5), 701-712. <https://doi.org/10.1177/1745691616658637>
- Stefano, E. C., Hudson, D. L., Whisenhunt, B. L., Buchanan, E. M., & Latner, J. D. (2016). Examination of body checking, body image dissatisfaction, and negative affect using ecological momentary assessment. *Eating Behaviours*, 22, 51–54. <http://dx.doi.org/10.1016/j.eatbeh.2016.03.026>
- Stice, E. (2002). Risk and maintenance factors for eating pathology: A meta-analytic review. *Psychological Bulletin*, 128(5), 825–848. <https://doi.org/10.1037/0033-2909.128.5.825>
- Stice, E., Rohde, P., & Shaw, H. (2012). *The Body Project: A dissonance-based eating disorder prevention intervention*. Oxford University Press.
- Stunkard, A. J., Sørensen, T., & Schulsinger, F. (1983). Use of the Danish adoption register for the study of obesity and thinness. In S. Kety, L. Rowland, R. Sidman, et al. (Eds.), *The genetics of neurological and psychiatric disorders*. (pp.115–120). Raven Press.
- Strupp, H. H., & Binder, J. L. (1984). *Psychotherapy in a new key: A guide to Time-Limited Dynamic Psychotherapy*. Basic Books, Inc.
- Sullivan, H. S. (2014). The interpersonal theory of psychiatry. In *An Introduction to Theories of Personality* (pp. 137-156). Psychology Press.
- Swami, V., Barron, D., Hari, R., Grover, S., Smith, L., & Furnham, A. (2019). The nature of positive body image: Examining associations between nature exposure, self-compassion, functionality appreciation, and body appreciation. *Ecopsychology*, 11(4), 243-253.

- Swami, V., Furnham, A., Horne, G., & Stieger, S. (2020). Taking it apart and putting it back together again: Using Item Pool Visualisation to summarise complex data patterns in (positive) body image research. *Body Image*, 34, 155-166.
- Swami, V., Todd, J., Stieger, S., Furnham, A., Horne, G., & Tylka, T. L. (2021). Body acceptance by others: Refinement of the construct, and development and psychometric evaluation of a revised measure–The Body Acceptance by Others Scale-2. *Body Image*, 36, 238-253.
- Swami, V., Todd, J., Stieger, S., & Tylka, T. L. (2020). The Body Acceptance by Others Scale: An assessment of its factorial validity in adults from the United Kingdom. *Body Image*, 35, 71-74.
- Tasca, G. A. (2016). Relationship-focused psychotherapies for eating disorders come of age. *Psychotherapy*, 53(2), 216–219. <https://doi.org/10.1037/pst0000058>
- Tasca, G. A., Balfour, L., Presniak, M. D., & Biassada, H. (2012). Outcomes of specific interpersonal problems for binge-eating disorder: Comparing group psychodynamic interpersonal psychotherapy and group cognitive behavioural therapy. *International Journal of Group Psychotherapy*, 62(2), 197-218. <https://doi.org/10.1521/ijgp.2012.62.2.197>
- Tasca, G. A., Mikail, S. F., & Hewitt, P. L. (2007). Group psychodynamic interpersonal psychotherapy: Summary of a treatment model and outcomes for depressive symptoms. In M. J. Henri (Ed.), *Trends in depression research* (pp. 1–30). Nova Science Publishers.
- Tasca, G. A., Mikail, S. F., & Hewitt, P. L. (2021). *Group psychodynamic-interpersonal psychotherapy*. American Psychological Association.

- Temple, M., & McVittie, C. (2005). Ethical and practical issues in using visual methodologies: The legacy of research-originating visual products. *Qualitative Research in Psychology*, 2(3), 227-239. <https://doi.org/10.1191/1478088705qp040oa>
- Tiggemann, M. (2011). Sociocultural perspectives on human appearance and body image. In T. F. Cash & L. Smolak (Eds.), *Body image: A handbook of science, practice, and prevention* (pp. 12-19). Guilford Press.
- Tiggemann, M. (2019). Relationships that cultivate positive body image through body acceptance. In T. L. Tylka & N. Piran (Eds.), *Handbook of positive body image and embodiment* (pp. 214-222). Oxford University Press.
- Tindle, R. (2021). Improving the global reach of psychological research. *Discover Psychology*, 1, 1-4. <https://doi.org/10.1007/s44202-021-00004-4>
- Thøgersen-Ntoumani, C., Dodos, L., Chatzisarantis, N., & Ntoumanis, N. (2017). A diary study of self-compassion, upward social comparisons, and body image-related outcomes. *Applied Psychology: Health and Well-Being*, 9, 242–258.
<http://dx.doi.org/10.1111/aphw.12089>
- Thompson, J. K. (1990). *Body image disturbance: Assessment and treatment*. Pergamon Press.
- Thompson, J. K. (Ed.). (2004). *Handbook of eating disorders and obesity*. John Wiley & Sons, Inc..
- Thompson, J. K., & Altabe, M. N. (1991). Psychometric qualities of the Figure Rating Scale. *International Journal of Eating Disorders*, 10, 615-619.
doi: 10.1002/1098-108X(199109)10:53.0.CO;2-K

- Thompson, J. K., Coover, M. D., & Stormer, S. M. (1999). Body image, social comparison, and eating disturbance: A covariance structure modeling investigation. *The International Journal of Eating Disorders*, 26, 43–51.
- Thompson, J. K., Heinberg, L. J., Altabe, M., & Tantleff-Dunn, S. (1999). *Exacting beauty: Theory, assessment, and treatment of body image disturbance*. American Psychological Association.
- Thompson, L., Rickett, B., & Day, K. (2018). Feminist relational discourse analysis: Putting the personal in the political in feminist research. *Qualitative Research in Psychology*, 15(1), 93-115.
- Thurston, L. L. (1999). *Postmodernist epistemology and the body image construct: Finding fundamentally different meanings in lived experience and social discourse*. (UMI No. 9961381) [Doctoral dissertation, The Fielding Institute]. Bell & Howell Information and Learning Company.
- Tiggemann, M. (2011). Sociocultural perspectives on human appearance and body image. In T. F. Cash & L. Smolak (Eds.), *Body image: A handbook of science, practice, and prevention* (pp. 12–19). Guilford Press.
- Tiggemann, M. (2019). Relationships that cultivate positive body image through body acceptance. In T. L. Tylka & N. Pivan (Eds.), *Handbook of positive body image and embodiment: Constructs, protective factors, and interventions* (pp. 214–222). Oxford University Press.
- Toomela, A. (2014). Mainstream psychology. In Teo, T. (Ed.), *Encyclopedia of critical psychology* (pp. 117-1125). Springer.

- Trapnell, P. D., & Paulhus, D. L. (2012). Agentic and communal values: Their scope and measurement. *Journal of Personality Assessment*, 94, 39–52.
- Treasure, J., Willmott, D., Ambwani, S., Cardi, V., Clark Bryan, D., Rowlands, K., & Schmidt, U. (2020). Cognitive interpersonal model for anorexia nervosa revisited: The perpetuating factors that contribute to the development of the severe and enduring illness. *Journal of Clinical Medicine*, 9(3), 630.
- Tylka, T. L., & Homan, K. J. (2015). Exercise motives and positive body image in physically active college women and men: Exploring an expanded acceptance model of intuitive eating. *Body Image*, 15, 90–97. <https://doi.org/10.1016/j.bodyim.2015.07.003>
- Tylka, T. L., & Kroon Van Diest, A. M. (2013). The Intuitive Eating Scale–2: Item refinement and psychometric evaluation with college women and men. *Journal of Counseling Psychology*, 60, 137–153. <https://doi.org/10.1037/a0030893>
- Tylka, T. L., & Piran, N. (2019). Focusing on the positive: An introduction to the volume. In T. L. Tylka & N. Pivan (Eds.), *Handbook of positive body image and embodiment: Constructs, protective factors, and interventions* (pp. 1–10). Oxford University Press.
- Tylka, T. L., & Wood-Barcalow, N. L. (2015). The Body Appreciation Scale-2: Item refinement and psychometric evaluation. *Body Image*, 12, 53-67.
<https://doi.org/10.1016/j.bodyim.2014.09.006>
- Wagenmakers, E., Wetzels, R., Borsboom, D., van der Maas, H. L. J., & Kievit, R. A. (2012). An agenda for purely confirmatory research. *Perspective on Psychological Science* 7(6), 632-638. <https://doi.org/10.1177/1745691612463078>

- Waite, L. J., Laumann, E. O., Levinson, W., Lindau, S. T., & O'Muircheartaigh, C. A. (2014). *National Social Life, Health, and Aging Project (NSHAP): Wave 1*. Inter-university Consortium for Political and Social Research.
- Waller, G., Turner, H., Tatham, M., Mountford, V. A., & Wade, T. D. (2019). *Brief cognitive behavioural therapy for non-underweight patients: CBT-T for eating disorders*. Routledge.
- Wang, Y. A., & Eastwick, P. W. (2020). Solutions to the problems of incremental validity testing in relationship science. *Personal Relationships*, 27(1), 156-175.
<https://doi.org/10.1111/pere.12309>
- Waring, S. V., & Kelly, A. C. (2020). Relational body image: Preliminary evidence that body image varies within a person from one specific relationship to another. *Body Image*, 34, 221-232. <https://doi.org/10.1016/j.bodyim.2020.06.006>
- Waring, S. V., & Kelly, A. C. (2023). The whole is more than the sum of its parts: A qualitative investigation of body-dissatisfied college women's experiences of relational body image. *Body Image*, 46, 174–189. <https://doi.org/10.1016/j.bodyim.2023.05.009>
- Waring, S. V., Sharpinskyi, K., & Kelly, A. C. (2022). Individual differences in relational body image: Within-person variability predicts maladaptive trait body image. *Body Image*, 43, 41–53. <https://doi.org/10.1016/j.bodyim.2022.08.005>
- Weedon, C. (1997). *Feminist practice and poststructuralist theory* (2nd ed.). Blackwell Publishers.
- Welch, E., Lagerström, M., & Ghaderi, A. (2012). Body shape questionnaire: psychometric properties of the short version (BSQ-8C) and norms from the general Swedish population. *Body Image*, 9(4), 547–550. <https://doi.org/10.1016/j.bodyim.2012.04.009>

- Wenzel, M., & Kubiak, T. (2020). Neuroticism may reflect emotional variability when correcting for the cofound with the mean. *PNAS*, *117*, 23857-32858.
<https://doi.org/10.1073/pnas.2017910117>
- Wertheim, E. H., Paxton, S. J., & Blaney, S. (2004). Risk Factors for the Development of Body Image Disturbances. In J. K. Thompson (Ed.), *Handbook of eating disorders and obesity* (pp. 463–494). John Wiley & Sons, Inc..
- Widiger, T. A., & Hines, A. (2022). The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition alternative model of personality disorder. *Personality Disorders: Theory, Research, and Treatment*, *13*(4), 347–355. <https://doi.org/10.1037/per0000524>
- Wigginton, B., & Lafrance, M. N. (2019). Learning critical feminist research: A brief introduction to feminist epistemologies and methodologies. *Feminism & Psychology*.
<https://doi.org/10.1177/0959353519866058>
- Wirth, M., Voss, A., Wirth, S., & Rothermund, K. (2022). Affect dynamics and well-being: Explanatory power of the model of intraindividual variability in affect (MIVA). *Cognition & Emotion*, *36*(2), 188–210. <https://doi.org/10.1080/02699931.2021.1993148>
- Wood-Barcalow, N. L., Tylka, T. L., & Augustus-Horvath, C. L. (2010). “But I Like My Body”: Positive body image characteristics and a holistic model for young-women. *Body Image*, *7*, 106-116. doi:10.1016/j.bodyim.2010.01.001.
- Wright, A. G. C., Ringwald, W. R., Hopwood, C. J., & Pincus, A. L. (2022). It's time to replace the personality disorders with the interpersonal disorders. *The American Psychologist*, *77*(9), 1085–1099. <https://doi.org/10.1037/amp0001087>

- Yager, Z. (2019). Promoting positive body image and embodiment in schools: Past, present, and future. In T. L. Tylka & N. Piran (Eds.), *Handbook of positive body image and embodiment* (pp. 346-359). Oxford University Press.
- Zhang, S., de la Haye, K., Ji, M., & An, R. (2018). Applications of social network analysis to obesity: A systematic review. *Obesity Reviews*, *19*, 976-988. doi:10.1111/obr.12684
- Zuroff, D. C., Sadikaj, G., Kelly, A. C., & Leybman, M. J. (2015). Conceptualizing and measuring self-criticism as both a personality trait and a personality state. *Personality Assessment*, *98*, 14-21. doi:10.1080/00223891.2015.1044604

Appendix A: Egocentric Network Concepts and Methodology for Study 1

Figure A1

A Sample Participant and the 10 Others from her Network

A participant generates the members of her total social network. The research team randomly selects 10 others about whom the participant provides responses during the study.

(Other 1 = O1, Other 2 = O2, etc).

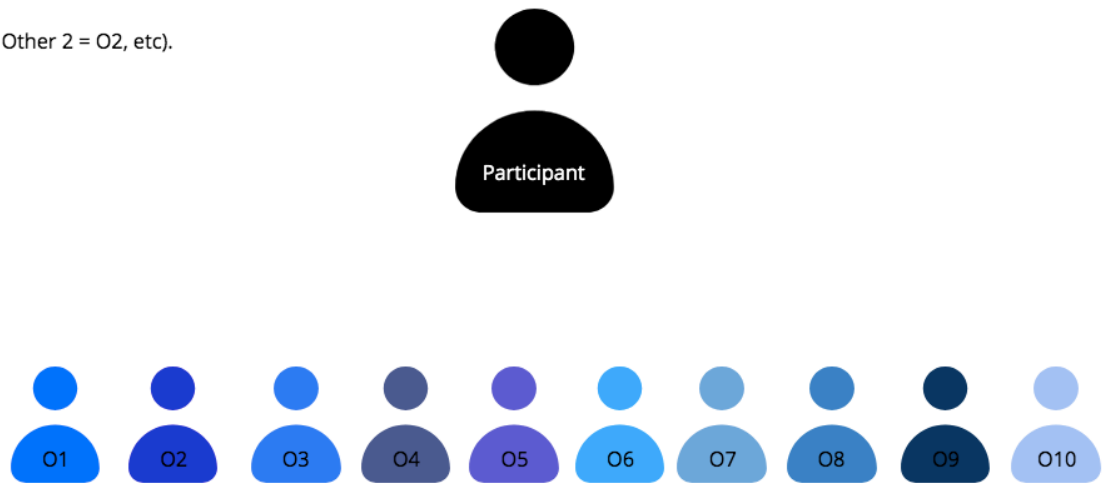


Figure A2

A Sample Participant's Ratings of the Other's Body Preoccupation in each of her 10 Relationships

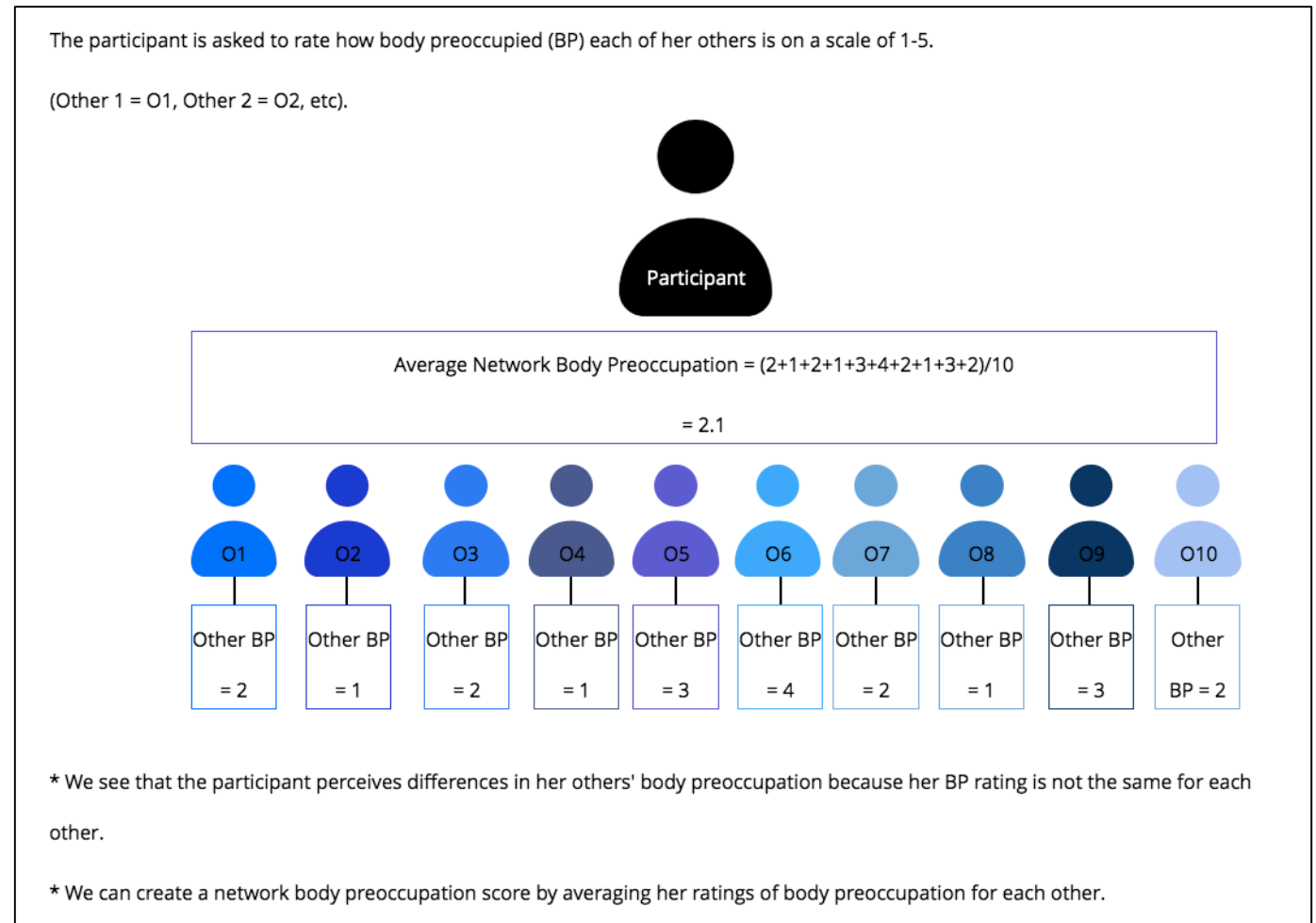


Figure A3

A Sample Participant's Ratings of her Body Appreciation in each of her 10 Relationships

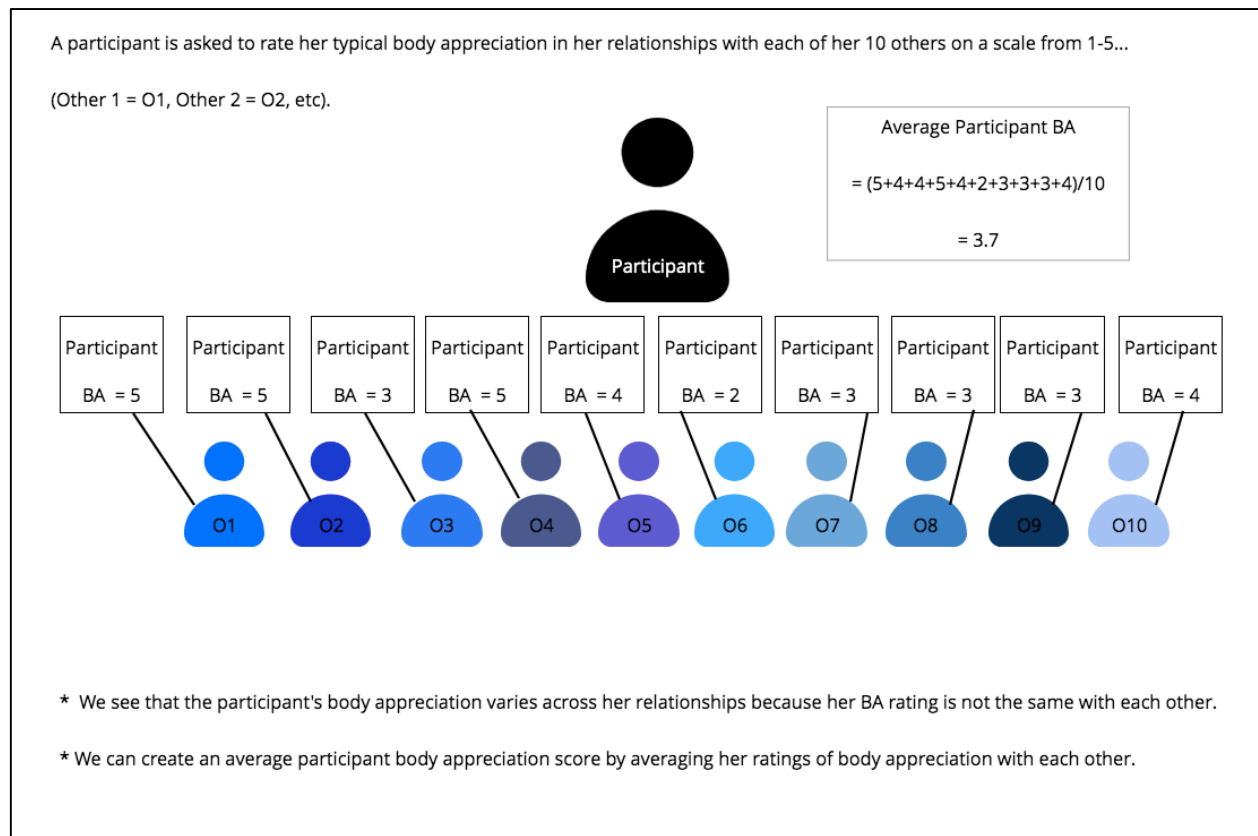
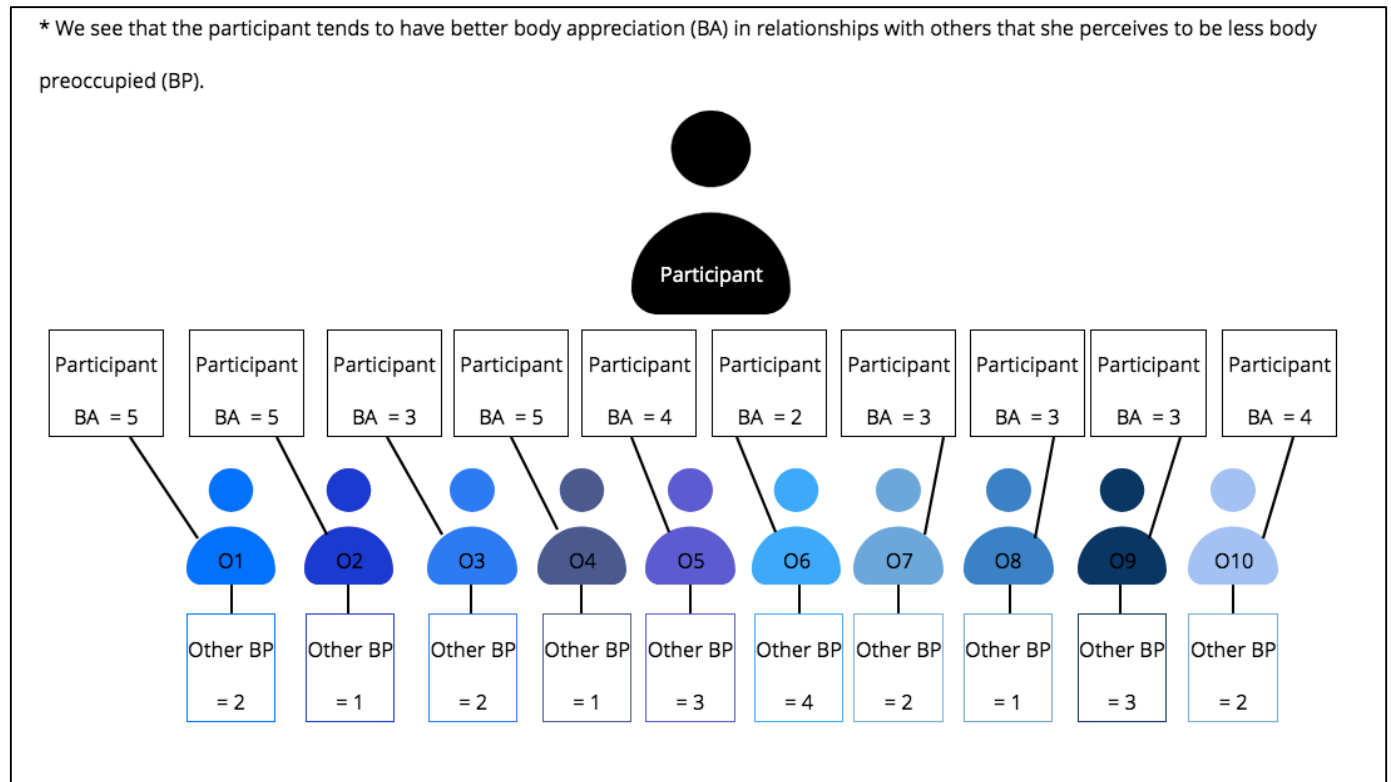


Figure A4

A Sample Participant's Ratings of the Other's Body Preoccupation and her Body Appreciation in each of her 10 Relationships



Appendix B: Comments on Study 3 Analytical Process

Stages of Analysis	Comments on Process
Data Familiarization	- Online versions of interview transcriptions were read and re-read with two initial research questions in mind - Notes were made on the transcriptions using the Comments function in Microsoft Word to record initial observations and reflections.
Generating Initial Codes	- Blank copies of interview transcripts were printed out and handwritten notes were used to note initial codes. A selective coding process was used, which included researcher-derived codes (Braun & Clarke, 2013). - Numerous iterations of coding were done, and codes evolved through each successive reading.
Generating Themes	- Codes were written onto sticky notes and initial candidate themes were generated by arranging codes visually on Bristol board to aggregate and collapse codes around central organizing concepts. - Transcripts were re-reviewed to collate together all the data extracts relevant to each candidate theme.
Reviewing Potential Themes	- Collated data extracts were reviewed to check and revise initial themes. - A thematic map was made to represent candidate themes, which included two overarching themes and five overall subthemes. - All transcripts were re-read to review potential themes in relation to our two research questions.
Defining and Naming Themes	- Theme definitions were written for each theme

- Candidate data extracts were selected for each theme. As part of this process, narrative thematic analysis (Riessman, 2008) was integrated to keep participant narrative's intact.
- Themes were reviewed with the second author.
- After review with the second author, we decided to focus the current paper on only our first research question, instead of the two questions together, given the complexity of the data. As our first research question was explored only in the first half of interview data, and the second research question explored only in the second half of the interview, the second half of the interview data was excluded from the rest of the analysis.
- Candidate themes were re-reviewed, re-defined, and re-named to only center around the primary research question.
- A final thematic map was created with one overarching theme and three sub-themes.

Producing the Report

- Results from the analysis were written up.
- Data were treated analytically, and thus our analysis was tied directly to the data extracts embedded in the text. As such, analysis was more conceptual, interpretative, and constructionist (Braun & Clarke, 2013).
- Relevant research literature was integrated into the analysis as needed to interpret data.
- Theme names were finalized.
- Data quality was checked through review of the analysis by the second author and by following the

15-point checklist for good thematic analysis
(Braun & Clarke, 2006; 2013).

Appendix C: Study 3 Additional Participant Examples

Below we include stories of relational body image from four participants who were not included in the main analysis presented in the body of the paper. These examples offer interested readers further exploration of our key themes.

Overarching Theme: The Whole Is More Than the Sum of Its Parts

In the example below, Lindsey describes her relational body image with her boyfriend and she details the interconnection between psychological, relational, and systemic factors. For example, she describes how her boyfriend has historically focused on his body as a result of his athleticism, which at first brought up negative relational body image for Lindsey through upward comparisons. However, she describes how her and her boyfriend's positive interpersonal history has offset this negative relational body image and allowed her to feel positive relational body image with him more often. Lastly, she describes how societal discourses around relationships, such as expectations around monogamy and a greater focus on physical appearance earlier on in relationships, have at times worsened her relational body image with her boyfriend. Again, through understanding the different interconnected factors that affect Lindsey's body image with her boyfriend, a more complicated view of her relational body image is portrayed.

“Just some background information: we’ve been dating for about two and a half years now and before he went to university he was a professional athlete, so he competed in [sport] at the national level. He’s quite fit. When we met in university I was like, ‘Oh he’s never gonna find me interesting because he’s been surrounded by all these like athletic bodies, he’s never gonna find my body attractive,’ so [my body image] was already starting at a very low point. But I think [now] I would say he’s been a very huge part in me redeveloping my self-confidence and body image into a more positive light. So we met in [year] and I was kind of at a [low body image point] when we met. The first six months to about a year were very like, you know, very physical and very sexual and all of that, but as we developed our relationship, you know how that kind of subsides and the companion side comes out. I think that’s where I’ve been able to focus on myself and my body image, so that’s been very helpful and he’s very encouraging. Like [negative body image still] comes up. When I’m having a bad day it comes up, but I think we’re at a

point in our relationship where he's not an athlete anymore and bodies change all the time, so I think we're at a point where we want each other to be healthy but the physical appearance is not as important. If I need that reminder I can get that reminder from him and that's nice to know... [My body image may be worse with my boyfriend than some other people in my life] but I think that's probably just the nature of our relationship. I guess you know the focus on monogamy, you can't find anyone else attractive but me, even though like obviously we all find people attractive and yeah I think it's just the nature of the relationship and I guess jealousy is part of it, insecurity. I don't know if insecurity will ever go away but it is as low as it has ever been for me, but it still comes up."

Subtheme 1: Other People's Expectations

Below Krystal describes her body image with her aunt. She highlights how her aunt tends to comment on her body because of their interpersonal history and her aunt's cultural background. However, as a result of these interconnected factors, Krystal understands that her aunt's intent with her comments is supportive. As such, she sees her aunt as holding a more positive expectation towards her body, in general, which allows her to feel less negatively impacted by her aunt's comments. Once again, this example highlights how a number of complicated and interrelated factors are a part of how people develop expectations about what others think of their bodies.

"She will always comment on my body but it's usually the same comments so I can easily dismiss them. It's either 'Oh you look so small, you look so frail,' and after first year it was like, 'Oh you've gained a little bit of weight, are you taking care of yourself?' Like, things of that nature. But yeah it doesn't really affect me that much anymore. Obviously I love her very much, she's like a second mother to me, but I don't know what it is about her comments that are a lot less piercing than other ones. I know her intentions are just to make sure that I'm okay. And she's still very eastern-ized I guess you can say, so I know that she values a fuller figure and things of that nature. At the end of the day she just wants me to be healthy and okay and not starve myself. So I think the difference there is that I know her intentions, and I love her very much and I know she loves me too, so she would never say anything to deliberately hurt me. I think it's a little comforting if I were to ever like gain weight, obviously I'm not trying to control my weight, but if I were to then she wouldn't criticize me, she might even be happy (laughs). I think that reminds me that everyone sees different body shapes and sizes and they just have different opinions. Everyone will have a different opinion, so if I stay this size then some people

are not gonna be happy, but if I gain weight then some people are not gonna be happy, so I think that's a good reminder that you can't please everyone."

Subtheme 2: Relational Body Image as Living

Below Christina describes her relational body image with her mother. She highlights a range of contextual and developmental factors that have impacted her experience of her relational body image. In terms of developmental factors, she describes how changes in life circumstances (e.g., immigration, divorce) and changes in life stages (e.g., adolescence, going to university) have indirectly and directly impacted the way she feels about her body when she is with her mother. In addition, Christina also discusses how contextual factors can trigger changes to her relational body image in a more acute way. For example, Christina is aware that if she does not wear a bra around her mother, her mother may comment on this, which will result in her experiencing worse relational body image in the moment. However, Christina also points out that contextual and developmental factors interact, noting that as she has gotten older, she is less negatively impacted by her mother's comments. Her description thus highlights how the interrelated factors that contribute to relational body image are always evolving, and as a result one's relational body image is also ever-changing.

"She has always been a very large contributor to how I present myself physically, like the clothes I wear, how I wear my hair, things of that nature. Before she would comment on if I gained weight. You know freshman fifteen is a thing and I very much experienced that. So after that everyone would comment on my body so my mom was a contributing factor to that as well. I think the main kind of situation that I've had with my mom is when I stopped wearing a bra, and she then she essentially slut shamed me but I kept doing it (laughs) and now she comments on it here and there but now I have the capacity and the confidence to just ignore her. Before she would be very dictating about what I wear, like how short my shorts can be or like my top, straps and stuff like that. I would say [my body image] is more [negative] with my mom because of those previous experiences I've had with her and just the frequency in which I'm in contact with her. Usually I don't think about not wearing a bra but if I was going to my mom's house, I'm like oh well maybe I should wear a baggier shirt. There's like a second thought when it comes to that just because I want to like avoid that confrontation... For a very long time

she was a single mother, so it was just me and her. We moved to Canada in 2007 from [country] and she separated from my dad in like 2008, so it's just been us two, so I think she's quite dependent on me. A lot of our fights came from around the time of high school when I wanted to distance myself as an adolescent. I think now we're a lot better but yeah I think now we're just quite dependent on each other. She has friends, she has family friends, and she has family but I'm like the center of everything for her, so yeah it's a very dependent relationship."

Subtheme 3: Power in Discrepancies

In the description below, Tina describes her relational body image with her brother, which was significantly worse than her relational body image with any of her six other important people. She describes the chronic negative and hostile comments she received from her brother about her body image and appearance and highlights how these comments are confusing and jarring to her given that their overall sibling relationship is generally positive. She underscores the power that these negative and often gendered comments have had on her and her own relationship with her body. Her example thus highlights how certain relationships can stand out more than others and thus have a stronger influence over one's body image—in a positive or negative way—because of the combination of contributing factors involved.

"Part of it is just him. He likes to say he is brutally honest, I would say rude. He will tell me if I've gained the littlest bit of weight, he will tell me if I'm eating too much, he will tell me in not very nice terms. Part of the problem is he is very thin, and he stays thin no matter what he eats so his thing is constantly like, 'Oh you must be eating like shit cause you look like that, I can eat so much more and still I'm not even that big.' That kind of talk. Somewhat worse than the typical older brother shit talking... he has used words like pig, fat. I think about one time when I was dressed up to go to prom and he said I looked like a cheap hooker, like 'Why do you even bother trying, you're like a 5/10 at best, like I don't understand how you have a boyfriend. How can he like you? You're a pig.' So I feel very beat down a lot of the time... Weirdly enough [our relationship in general] is mostly fine. He seems to just enjoy making comments about my weight and about my appearance more than most other things. He makes comments that I may have got the smarts but he's the attractive one, he's the sociable one, so I feel like that's part of where it comes from, like he's comparing us constantly... I think the earliest I can remember was like my sixth-grade graduation. I can remember him making a comment like that, just telling me I looked like a sausage in my dress and I was like ugh... I mean we enjoy the same things, we have very similar hobbies, we talk quite frequently through

messenger, we used to have family dinners every single week, we went out Christmas shopping together, we've gone out for meals together. Overall, we're close but he just for some reason gets a kick out of insulting me (laughs) so it is moderately jarring cause it's like we do have a good relationship, like he's supportive in other things. He convinced me to go to therapy, he's helped me deal with relationship problems, he's bought me things when I feel sad, but also he insults me a lot so it's kind of weird... I guess part of it is just due to his comments kind of being internalized and the fact that for a long time he's gone on about how he got the good genes... going on about like 'Oh I may not be smart but at least I'm attractive, not like my sister.' So it's just kind of something that I've taken and I guess kind of internalized."