Title of Entry: Gender Similarities Hypothesis

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Synonyms: N/A

Definition: This hypothesis states that females and males are similar on most, but not all, psychological variables

Introduction

To date, the question whether men and women are different in their abilities, personality, interests, attitudes, and behaviors occupies scientific and public discourse. Common lay theories in society and best-selling books such as John Gray's (1992) "Men are from Mars, Women are from Venus" stress a gender *differences* hypothesis. Such essentialist views typically advance two sources for these presumed differences (Saguy et al., 2020). First, scientific evidence on sex differences in certain biological indicators (variations in hormonal levels or genetics) lead people to infer that men and women differ in traits and behaviors. Second, socio-cultural explanations advance that girls and boys are socialized into different "gender" roles and thus women and men should differ in important ways and across various psychological domains. In contrast to this gender *differences* hypothesis, the gender *similarities* hypothesis formulated by psychologist Janet Shibley Hyde (2005) argues that women and men, and girls and boys, are more similar than they are different. Empirical evidence indeed shows that when between-gender group differences arise, they tend to be small in magnitude, and smaller than within-gender group differences. Moreover, the literature shows that contextual factors can increase, decrease, or even inverse gender

differences, an elusiveness that led Deaux and Major (1987) to conclude “Now you see them, now you don’t”.

Meta-Analysis as a Powerful Instrument

To compare the differences vs similarities hypotheses, scholars review and analyze empirical findings from the scientific literature investigating whether women and men differ, or are similar, *across* specific psychological domains. One powerful technique is meta-analysis. This approach starts with a systematic search of the peer-reviewed scientific literature for studies that consider participant sex or gender in the analysis of psychological concepts such as specific abilities (e.g., verbal skills), behaviors (e.g., sexuality), or traits (e.g., self-esteem). Specific attention is given to variables that might modify effects across situations or groups (e.g., lab vs field studies, culture). This search also includes active calls for scholars to share their unpublished data because non- or unexpected results are less likely published (cf. publication bias). The meta-analysis itself examines the effect size of gender differences across studies, using a standardized numerator such as Cohen’s *d* which compares between-group differences (i.e., the mean of women is subtracted from the mean of men) to within-group variability (i.e., divided by the mean standard deviation of within-gender group differences). Values under 0.2 are interpreted as small differences, values around 0.5 as moderate, and those larger than 0.8 as large differences (Cohen, 1988). A male advantage on a measure is usually expressed by a positive value and a female advantage by a negative value.

Evidence in Support of the Gender Similarities Hypothesis

Hyde (1981) was the first researcher to consider statistical effect sizes in a meta-analysis on gender differences in ability. The first group of scholars to aggregate findings from several meta-analytical studies in a meta-synthesis (i.e., second-order meta-analysis) to examine gender differences across domains was Richard et al. (2003). They found only a

small absolute difference between women and men for social and personality related domains (e.g., relationships, nonverbal communication). Two years later, Hyde (2005) conducted a review of 46 major meta-analyses examining gender differences across various domains (e.g., cognitive variables, communication, wellbeing, personality, motor behaviors), and found that 48% of the effect sizes were within the small range, and 30% were within the close-to-zero range. She concluded that "women and men are more alike than they are different" (p. 581), supporting the basic assumption of the gender similarities hypothesis. This revelation was particularly striking as some of the domains showing gender similarities were originally established areas of gender differences, such as mathematics performance, vocabulary, reading comprehension, helping behavior, self-disclosure, self-esteem, and leadership effectiveness. Going further, more recently Zell et al. (2015) carried out a meta-synthesis including 106 meta-analyses and 386 individual meta-analytic effects. Gender differences in 46.1% of the analyzed effects were small and 39.4% were very small; with only very small average differences across all domains ($d = 0.21$). In their exploration of moderators, they also showed that magnitudes of difference varied somewhat across different psychological domains but not across age, culture, and time.

Overall, the meta-analyses to date speak more strongly for the gender similarities hypothesis than for a gender differences hypothesis. It is important to note, however, that some controversy remains as to whether statistically small sex differences have small practical relevance and statistically large sex differences have great practical relevance. For example, small differences in ability scores may have large effects on student selection into specific educational institutions.

Exceptions to the Gender Similarities Hypothesis

The gender similarities hypothesis recognizes that the genders are not necessarily similar in every domain and that exceptions of consistent and substantial gender differences

should be acknowledged. For example, in her classical 2005 meta-analysis, Hyde observed large gender difference in the domain of motor performance, with men outperforming women in measures such as throwing velocity (d = 2.18) and throwing distance (d = 1.98). Another area in which she noted gender differences was sexuality, with men reporting more incidences of masturbation and holding more permissive attitudes toward casual sex than women. Gender differences of moderate size are repeatedly found for aggression, with men found to be more physically aggressive and, to a smaller extent, more verbally aggressive than women. Some evidence further found women to report more relational aggression than men although evidence on the size of this effect is ambiguous. Similarly, Zell et al. (2015) found several gender differences for which the effects were either medium (11.9%), large (1.8%), or very large (0.8%). Regarding the largest gender differences, women scored higher than men on measures of reactivity to painful (noxious) stimuli (d = 0.56), peer-attachment (d = 0.51), and interest in people as opposed to things (d = 0.49), whereas men scored higher than women on measures of masculinity (d = 0.73), mental rotation ability (d = 0.57), importance of physical attractiveness in mate selection (d = 0.53), and aggression (d = 0.45).

The Moderating Role of Age, Context and Culture

The magnitude of psychological gender differences is often a function of developmental differences, context, and culture. First, gender differences in psychological variables (e.g., self-esteem, computer self-efficacy) can vary across different periods over the life span. For instance, a meta-analysis has shown increases in gender differences in self-esteem from childhood to adolescence, yet smaller differences in older populations (Kling et al., 1999). Second, context (e.g., type of instruction, knowledge of being observed) influences the magnitude of gender differences found in different domains (e.g., helping, aggression). For instance, while a meta-analysis by LaFrance et al. (2003) found a moderate gender difference where women and girls smiled more than men and boys, this gender differences

became larger (or smaller) when participants were aware of being observed (or unaware of being observed). Third, gender differences can vary according to culture, as exemplified by a study on negotiation performance which showed this performance to vary across several cultural indicators (Shan et al., 2019). Still, in their meta-synthesis, Zell et al. (2015) found that gender differences were largely constant across age, time, and culture; however, they caution to not use these data "to infer that gender differences are static or fixed" (p. 17).

Explaining Differences and Similarities

Several theories in psychology explain the variability in gender differences and similarities. While differences in certain motor performances can be associated to a large degree with physical differences in muscle mass or other anatomical differences between women and men, those in psychological dimensions need a more refined analysis in regard to cultural and social influences.

One major theoretical approach is evolutionary psychology (e.g., Buss, 2014), which postulates that women's and men's physical, behavioral, and psychological characteristics are derived from sex differences in survival and reproduction strategies in our ancestral pasts. For example, women are argued to invest more in child-rearing because they biologically invest more in terms of gamete size and physical resource and energy expenditure during pregnancy and lactation compared to men, whose reproductive biological investment is less costly and punctual, allowing them to be more involved in activities (war, hunting) where they may stay away for longer periods of time.

Biosocial constructivist theory (Wood & Eagly, 2012) integrates both biological and cultural factors in explaining gender differences, positing that physical differences in strength and reproductive abilities (childbearing) contributed to a division of labor among the sexes, with men occupying more dangerous and physically demanding roles, and women occupying roles more compatible with childrearing and thus proximity to the home. Children are then

socialized into these differing roles and internalizing them. According to constructivist theory, roles may vary across societies and socio-economic developments. In modern industrialized societies, where strength is argued to be less important, roles may change, giving women and men access to similar occupations. Thus, whereas social constructivist theories consider psychological factors (e.g., traits, behaviors) as socialized and therefore malleable, evolutionary psychology proposes that behaviors and preferences are genetically encoded with change much slower over evolutionary time.

Cognitive social learning theory (Bussey & Bandura, 1999) proposes that children learn through imitation and by observing the feedback that individuals of their same gender group receive for different types of attitudes or behavior. Children then adopt or integrate those that are rewarded and avoid those that are punished. Differences are thus argued to occur through learning which behaviors are socially valued for girls versus boys. Similarities are possible as societies become more egalitarian and cease to move away from giving encouragements or punishments as a function of gender.

Research also shows that similarities and differences found between genders can be at times explained by *how* traits are measured. For example, the measurement of risk-taking is gendered because it is typically assessed using stereotypically masculine behaviours (e.g., mountain-climbing). Risks specific to women (e.g., horse-riding, confronting a person about a sexist remark) are often underrepresented in such scales, which downplays women's risk-taking tendencies (Morgenroth et al., 2018).

Last, in line with the social identity approach, contextual factors can make gender identity salient in some situations but not in others, leading to variations in the size and direction of gender differences. For example, gender differences in self-ratings of personality traits are only found when gender is salient, appearing when self-ratings are posed relative to the opposite gender but not in ingroup-comparison contexts (Guimond, 2008). Similarly, in

performance domains where a negative stereotype about a group exists (e.g., women and maths), gender differences appear or increase when gender is salient (cf. stereotype threat; Flore & Wicherts, 2015).

Overall, research shows that the few psychological areas with gender differences reflect well enshrined societal beliefs, viewing women as more relational and communal and men as more independent and agentic.

Conclusion and Outlook

The gender similarities hypothesis proposed by Hyde (2005) argues that women and men are similar on most, but not all, psychological variables. Evidence in favor of this hypothesis as opposed to the gender differences hypothesis is accumulating while acknowledging exceptions and the role of contextual variations. Gender ideologies, which rely on biological differences between males and females, argue that men and women differ essentially in various domains distort the realities uncovered in well-designed research (Saguy et al., 2020). A continued emphasis on vast gender differences can be problematic as it might yield costly consequences for women and men regarding relationships and parental roles, wellbeing, and career choices or opportunities in the workplace. In contrast, an emphasis on how women and men are more alike than different, encourages both sexes to seek out roles and opportunities which suit their individuality, regardless of their gender.

Finally, future research needs to go beyond the gender binary (Hyde et al., 2019) to consider the complexities of a non-binary definition of gender, and findings that challenge the binary view of biological indicators of sex. As already questioned by Butler in 1990: "… *what is sex anyway? Is it natural, anatomical, chromosomal, or hormonal? (...) with the consequence that the distinction between sex and gender turns out to be no distinction all."* (p. 9).

Cross-References

Aggression

Buss, David

Evolutionary psychology

Learning

Parental investment

Risk-taking behaviors

Sex

Sex differences

Sex differences: parental investment

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